154_project

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```
library(stringr)
library(e1071)
library(tree)
library(splines)
library(corrplot)
## corrplot 0.84 loaded
library(randomForest)
## randomForest 4.6-14
## Type rfNews() to see new features/changes/bug fixes.
library(caret)
## Loading required package: lattice
## Loading required package: ggplot2
##
## Attaching package: 'ggplot2'
## The following object is masked from 'package:randomForest':
##
##
       margin
epl=data.frame(read.csv("epldata_final.csv"))
#print(epl)
#barplot(table(epl$position))
#dim(model.matrix( ~ club + position +nationality- 1, data=epl ))
```

Data wrangling

We combine columns of one-hot encoding of club, position, and nationality into epl data frame.

```
epl$fpl_sel <- as.double(str_remove(epl$fpl_sel, "%$"))
epl <- cbind(epl, model.matrix( ~ club + position +nationality- 1, data=epl))
#epl</pre>
```

We remove columns we don't use and we clean up the NAs. Lastly, we split the data into training and test set.

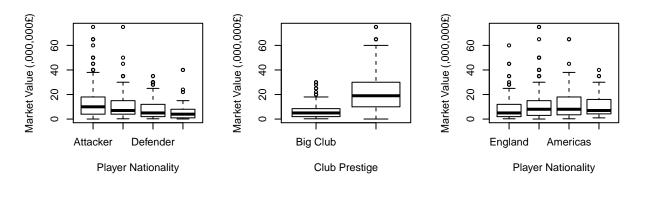
```
#deleting unwanted columns
epl$name=NULL
epl$club=NULL
epl$position=NULL
#epl$page_views=NULL
#epl$fpl_value=NULL
epl$fpl_sel=NULL
```

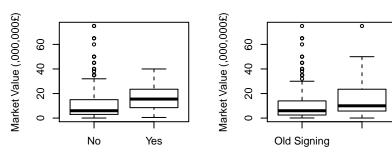
```
#epl$fpl_points=NULL
epl$nationality=NULL
epl$age_cat=NULL
\#epl$club_id=NULL
#head(epl)
epl=na.omit(epl)
factors=c('position_cat','region','big_club','new_signing','new_foreign')
#head(epl)
#epl[factors] <- lapply(epl[factors] , factor)</pre>
names(epl)
     [1] "age"
##
                                           "position_cat"
##
     [3] "market_value"
                                           "page_views"
##
                                           "fpl_points"
     [5] "fpl_value"
     [7] "region"
##
                                           "new_foreign"
##
     [9] "club_id"
                                           "big_club"
##
    [11] "new_signing"
                                           "clubArsenal"
##
   [13] "clubBournemouth"
                                           "clubBrighton+and+Hove"
##
   [15] "clubBurnley"
                                           "clubChelsea"
##
    [17] "clubCrystal+Palace"
                                           "clubEverton"
##
   [19] "clubHuddersfield"
                                           "clubLeicester+City"
##
  [21] "clubLiverpool"
                                           "clubManchester+City"
  [23] "clubManchester+United"
                                           "clubNewcastle+United"
##
  [25] "clubSouthampton"
                                           "clubStoke+City"
##
  [27] "clubSwansea"
                                           "clubTottenham"
## [29] "clubWatford"
                                           "clubWest+Brom"
## [31] "clubWest+Ham"
                                           "positionCB"
## [33] "positionCF"
                                           "positionCM"
## [35] "positionDM"
                                           "positionGK"
  [37] "positionLB"
                                           "positionLM"
  [39] "positionLW"
##
                                           "positionRB"
##
  [41] "positionRM"
                                           "positionRW"
  [43] "positionSS"
##
                                           "nationalityArgentina"
  [45] "nationalityArmenia"
                                           "nationalityAustralia"
##
  [47] "nationalityAustria"
                                           "nationalityBelgium"
##
  [49] "nationalityBenin"
                                           "nationalityBermuda"
##
  [51] "nationalityBosnia"
                                           "nationalityBrazil"
  [53] "nationalityCameroon"
                                           "nationalityCanada"
##
  [55] "nationalityChile"
                                           "nationalityColombia"
##
  [57] "nationalityCongo DR"
                                           "nationalityCote d'Ivoire"
##
  [59] "nationalityCroatia"
                                           "nationalityCuracao"
## [61] "nationalityCzech Republic"
                                           "nationalityDenmark"
##
    [63] "nationalityEcuador"
                                           "nationalityEgypt"
##
  [65] "nationalityEngland"
                                           "nationalityEstonia"
  [67] "nationalityFinland"
                                           "nationalityFrance"
  [69] "nationalityGermany"
                                           "nationalityGhana"
##
  [71] "nationalityGreece"
                                           "nationalityIceland"
##
  [73] "nationalityIreland"
                                           "nationalityIsrael"
  [75] "nationalityItaly"
                                           "nationalityJamaica"
  [77] "nationalityJapan"
##
                                           "nationalityKenya"
   [79] "nationalityMali"
##
                                           "nationalityMorocco"
##
   [81] "nationalityNetherlands"
                                           "nationalityNew Zealand"
   [83] "nationalityNigeria"
                                           "nationalityNorthern Ireland"
```

```
## [85] "nationalityNorway"
                                          "nationalityPoland"
## [87] "nationalityPortugal"
                                          "nationalityRomania"
## [89] "nationalityScotland"
                                          "nationalitySenegal"
## [91] "nationalitySerbia"
                                          "nationalitySlovenia"
## [93] "nationalitySouth Korea"
                                          "nationalitySpain"
## [95] "nationalitySweden"
                                          "nationalitySwitzerland"
## [97] "nationalityThe Gambia"
                                          "nationalityTrinidad and Tobago"
## [99] "nationalityTunisia"
                                          "nationalityUnited States"
## [101] "nationalityUruguay"
                                          "nationalityVenezuela"
## [103] "nationalityWales"
train.index=sample(nrow(epl),nrow(epl)*0.75)
train=epl[train.index,]
test=epl[-train.index,]
```

Plots of some basic statistics.

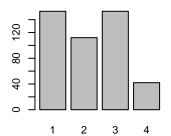
```
#boxplots for all the categorical variables
par(mfrow=c(2,3))
#attacker=1,midfielders=2,defenders=3,goalkeepers=4
boxplot(epl$market_value~epl$position_cat,xlab='Player Nationality',ylab='Market Value (,000,000$)',nam
#Plays for top 6 clubs. (Arsenal,Chelsea,Liverpool,Manchester City,Manchester United,Tottenham)
boxplot(epl$market_value~epl$big_club,xlab='Club Prestige',ylab='Market Value (,000,000$)',names=c('Big
#what region in the world the player is from 1=England, 2=Rest of EU, 3=Americas, 4= Rest of World
boxplot(epl$market_value~epl$region,xlab='Player Nationality',ylab='Market Value (,000,000$)',names=c('Big
#Used to play in a different (foreign) league
boxplot(epl$market_value~epl$new_foreign,xlab='New Player from Foreign League',ylab='Market Value (,000,000$)'
#Whether or not the player is a new signing (12 month playing or less)
boxplot(epl$market_value~epl$new_signing,ylab='Market Value (,000,000$)',names=c('Old Signing','New Signar')
```

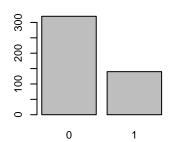


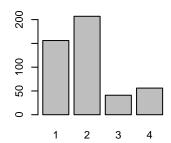


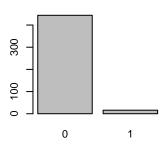
New Player from Foreign League

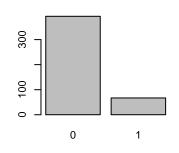
```
barplot(table(epl$position_cat))
barplot(table(epl$big_club))
barplot(table(epl$region))
barplot(table(epl$new_foreign))
barplot(table(epl$new_signing))
barplot(table(epl$age), xlab="Age", ylab="Market Value (,000,000£)")
```

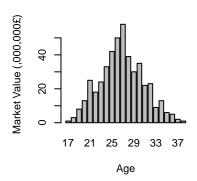






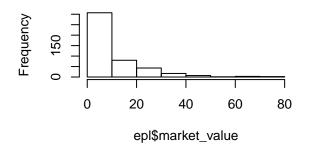




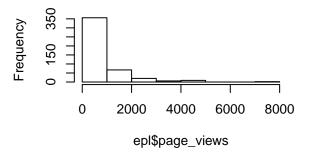


```
par(mfrow=c(2,2))
hist(epl$market_value)
hist(epl$page_views)
hist(epl$fpl_value)
hist(epl$fpl_points)
```

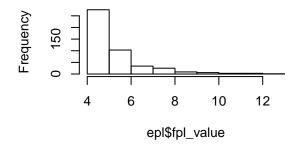
Histogram of epl\$market_value



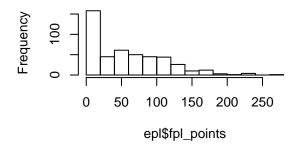
Histogram of epl\$page_views



Histogram of epl\$fpl_value



Histogram of epl\$fpl_points

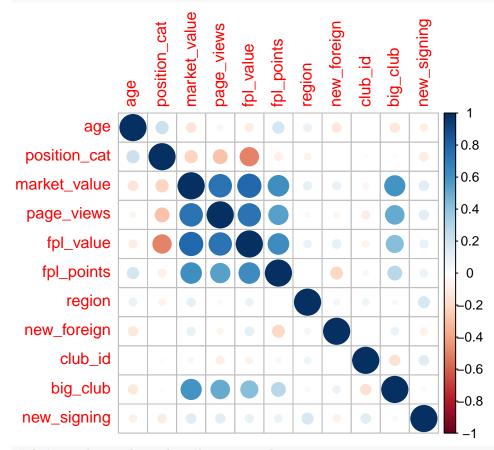


```
summary(epl$big_club)
      Min. 1st Qu.
                    Median
                              Mean 3rd Qu.
                                               Max.
    0.0000 0.0000
                    0.0000
##
                            0.3043 1.0000
                                            1.0000
summary(epl$region)
##
      Min. 1st Qu.
                    Median
                              Mean 3rd Qu.
                                               Max.
##
     1.000
             1.000
                     2.000
                              1.993
                                      2.000
                                              4.000
summary(epl$new_foreign)
##
      Min. 1st Qu. Median
                              Mean 3rd Qu.
                                               Max.
## 0.00000 0.00000 0.00000 0.03478 0.00000 1.00000
summary(epl$new_signing)
```

Min. 1st Qu. Median Mean 3rd Qu. Max. ## 0.0000 0.0000 0.0000 0.1457 0.0000 1.0000

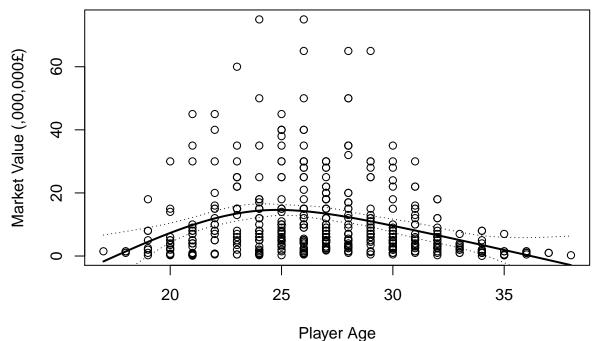
Corrlation plot shows which predictors are closely related to other variables. Note page_views, fpl_values, fpl_points, and big_club has large corrleations with market_value.

corrplot(cor(epl[c("age", "position_cat", "market_value", "page_views", "fpl_value", "fpl_points", "reg



#plot + cubic spline for the ages column
age.spline=lm(market_value~ns(age,4),epl)
x=seq(min(epl\$age),max(epl\$age),length=100)
y=predict(age.spline,newdata=data.frame(age=x),se=T)

```
plot(epl$age,epl$market_value,xlab='Player Age',ylab='Market Value (,000,000£)')
lines(x,y$fit,lwd=2)
lines(x,y$fit+2*y$se.fit,lty='dotted')
lines(x,y$fit-2*y$se.fit,lty='dotted')
```

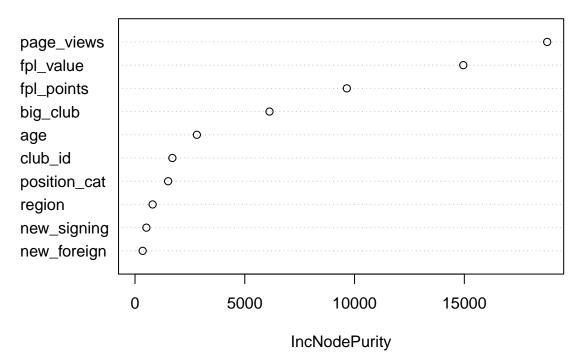


Variable importance plots shows that page_views and fpl_value is the best predictor for market_value.

```
rf_fit=randomForest(market_value~., data=train[c("age", "position_cat", "market_value", "page_views", ".
(VI_F=importance(rf_fit))
```

```
##
                 IncNodePurity
                     2816.5540
## age
## position_cat
                     1507.2981
## page_views
                    18773.7976
## fpl_value
                    14952.4387
## fpl_points
                     9647.1615
## region
                      802.7170
## new_foreign
                      349.3183
## club_id
                     1701.3080
## big_club
                     6126.0191
## new_signing
                      517.4540
\#varImp(rf\_fit)
varImpPlot(rf_fit,type=2)
```

rf fit



Our linear model with the following predictors (age, position_cat, region, big_club, new_signing, new_foreign) gives us 102 test mean square error.

```
#linear model with forward/backward selection with age as linear term
epl.lmfit1=lm(market_value~age+position_cat+region+big_club+new_signing+new_foreign,train)
summary(epl.lmfit1)
```

```
##
## Call:
  lm(formula = market_value ~ age + position_cat + region + big_club +
##
       new_signing + new_foreign, data = train)
##
## Residuals:
       Min
                1Q Median
                                3Q
                                        Max
##
           -4.951 -0.752
                             3.795
                                    49.494
##
  -29.189
##
## Coefficients:
##
                Estimate Std. Error t value Pr(>|t|)
                                       2.141
## (Intercept)
                 8.28299
                            3.86790
                                               0.0330 *
                                       0.553
                                               0.5805
                 0.07832
                            0.14156
                                     -5.325 1.84e-07 ***
## position_cat -2.94911
                            0.55379
## region
                 0.65519
                            0.60016
                                      1.092
                                               0.2757
## big_club
                16.88305
                            1.16375
                                     14.507
                                              < 2e-16 ***
## new_signing
                 3.04854
                            1.57209
                                       1.939
                                               0.0533 .
## new_foreign
                 4.41800
                            3.12401
                                       1.414
                                               0.1582
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 9.976 on 338 degrees of freedom
## Multiple R-squared: 0.4322, Adjusted R-squared: 0.4221
```

```
## F-statistic: 42.88 on 6 and 338 DF, p-value: < 2.2e-16
epl.lmfit1.y = predict(epl.lmfit1, newdata=test)
mean((test$market_value-epl.lmfit1.y)^2)
## [1] 59.47557
We use backward and forward stepwise function to find best the best performing predictors.
start.model1=lm(market_value~1,data=epl)
end.model1 =lm(market_value~age+position_cat+region+big_club+new_signing+new_foreign,data=epl)
step(start.model1, scope=list(lower=start.model1,upper=end.model1),direction="forward")
## Start: AIC=2307.44
## market value ~ 1
##
##
                  Df Sum of Sq
                                 RSS
                                        AIC
## + big_club
                       24312.9 44769 2109.9
                   1
## + position_cat 1
                        3318.5 65763 2286.8
## + age
                        1237.3 67845 2301.1
                   1
## + new_signing
                   1
                        1185.0 67897 2301.5
## + region
                   1
                        713.9 68368 2304.7
                         662.1 68420 2305.0
## + new_foreign 1
                               69082 2307.4
## <none>
##
## Step: AIC=2109.9
## market_value ~ big_club
##
##
                  Df Sum of Sq
                                 RSS
                                        AIC
## + position cat 1
                        3617.8 41151 2073.1
## + new_signing
                         840.6 43928 2103.2
                   1
## + region
                   1
                         426.1 44343 2107.5
## + age
                  1
                         247.1 44522 2109.3
## <none>
                               44769 2109.9
                         173.9 44595 2110.1
## + new_foreign 1
## Step: AIC=2073.14
## market_value ~ big_club + position_cat
##
##
                 Df Sum of Sq
                                RSS
                                       AIC
## + new_signing 1
                       514.69 40636 2069.3
## + region
                  1
                       284.80 40866 2071.9
                              41151 2073.1
## <none>
## + new_foreign 1
                       173.30 40978 2073.2
                  1
                        5.87 41145 2075.1
## + age
##
## Step: AIC=2069.35
## market_value ~ big_club + position_cat + new_signing
##
##
                 Df Sum of Sq
                                RSS
                                       AIC
## + new_foreign 1
                      227.287 40409 2068.8
                              40636 2069.3
## <none>
## + region
                  1
                      174.446 40462 2069.4
## + age
                  1
                       1.407 40635 2071.3
```

##

```
## Step: AIC=2068.77
## market_value ~ big_club + position_cat + new_signing + new_foreign
##
##
           Df Sum of Sq RSS
                                  AIC
## <none>
                         40409 2068.8
## + region 1
                 150.821 40258 2069.1
## + age
                  0.501 40409 2070.8
             1
##
## Call:
## lm(formula = market_value ~ big_club + position_cat + new_signing +
       new_foreign, data = epl)
##
## Coefficients:
## (Intercept)
                     big_club position_cat
                                             new_signing
                                                           new_foreign
##
         11.520
                                     -2.688
                                                    3.183
                       15.685
                                                                  3.862
step(end.model1, scope=list(lower=start.model1,upper=end.model1),direction="backward")
## Start: AIC=2071.04
## market_value ~ age + position_cat + region + big_club + new_signing +
##
      new_foreign
##
                 Df Sum of Sq
##
                                 RSS
                                        AIC
## - age
                  1
                           0.8 40258 2069.1
                        151.1 40409 2070.8
## - region
                   1
## <none>
                               40257 2071.0
                        196.6 40454 2071.3
## - new foreign
                 1
                        448.3 40706 2074.1
## - new signing
                  1
## - position_cat 1
                       3024.8 43282 2102.4
                      23219.2 63477 2278.5
## - big_club
##
## Step: AIC=2069.05
## market_value ~ position_cat + region + big_club + new_signing +
##
      new_foreign
##
##
                  Df Sum of Sq
                                RSS
## - region
                  1
                     150.8 40409 2068.8
                               40258 2069.1
## <none>
                        203.7 40462 2069.4
## - new foreign
                  1
## - new_signing
                        455.0 40713 2072.2
                   1
## - position_cat 1
                       3206.5 43465 2102.3
## - big_club
                   1
                       23624.3 63883 2279.4
##
## Step: AIC=2068.77
## market_value ~ position_cat + big_club + new_signing + new_foreign
##
##
                  Df Sum of Sq
                               RSS
                                        AIC
## <none>
                               40409 2068.8
                        227.3 40636 2069.3
## - new_foreign
                   1
## - new_signing
                        568.7 40978 2073.2
                   1
## - position_cat 1
                       3275.7 43685 2102.6
## - big_club
                  1
                       23754.1 64163 2279.5
##
## Call:
```

```
## lm(formula = market_value ~ position_cat + big_club + new_signing +
##
       new_foreign, data = epl)
##
## Coefficients:
##
    (Intercept)
                 position_cat
                                    big_club
                                               new_signing
                                                              new foreign
         11.520
                       -2.688
                                      15.685
                                                     3.183
                                                                    3.862
##
Our stepwise function found the best performing model (market_value~big_club+position_cat+new_signing+new_foreign)
in this small scale search. The test MSE for this model is 102.
#both forward and backward model selection give the same outbut
epl.forwardfit1=lm(market_value~big_club+position_cat+new_signing+new_foreign,data=train)
summary(epl.forwardfit1)
##
## Call:
## lm(formula = market_value ~ big_club + position_cat + new_signing +
       new_foreign, data = train)
##
## Residuals:
      Min
              1Q Median
                            3Q
##
                                   Max
## -28.77 -5.22 -0.72
                          3.28 49.52
##
## Coefficients:
##
                Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                  11.513
                               1.351
                                       8.521 5.22e-16 ***
                               1.155 14.610 < 2e-16 ***
## big_club
                  16.868
## position_cat
                  -2.896
                               0.536
                                     -5.403 1.23e-07 ***
                   3.338
                               1.539
                                      2.168
                                               0.0308 *
## new_signing
## new_foreign
                   4.608
                               3.087
                                       1.493
                                               0.1364
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 9.97 on 340 degrees of freedom
## Multiple R-squared: 0.4295, Adjusted R-squared: 0.4228
## F-statistic: 63.99 on 4 and 340 DF, p-value: < 2.2e-16
epl.forwardfit1.y = predict(epl.forwardfit1, newdata=test)
mean((test$market_value-epl.forwardfit1.y)^2)
## [1] 58.98368
We try a linear model with natural spline on predictor age and degree 3. Which gives us a test MSE of 83
#linear model with forward/backward selection with splines for age term
epl.lmfit2=lm(market_value~ns(age,3)+position_cat+region+big_club+new_signing+new_foreign,train)
summary(epl.lmfit2)
##
## Call:
## lm(formula = market_value ~ ns(age, 3) + position_cat + region +
       big_club + new_signing + new_foreign, data = train)
##
##
## Residuals:
##
       Min
                1Q Median
                                 3Q
                                        Max
## -24.580 -5.253 -0.710
                             3.722 47.699
##
```

```
## Coefficients:
##
                Estimate Std. Error t value Pr(>|t|)
## (Intercept)
                 -0.9491
                              2.8130 -0.337 0.736028
## ns(age, 3)1
                  5.5236
                              2.3348
                                       2.366 0.018562 *
## ns(age, 3)2
                 22.1750
                              6.0352
                                       3.674 0.000278 ***
## ns(age, 3)3
                              3.6338 -1.024 0.306400
                 -3.7224
## position cat
                 -2.7940
                              0.5319 -5.253 2.66e-07 ***
## region
                  0.2800
                              0.5778
                                       0.485 0.628314
## big_club
                 16.7505
                              1.1146 15.028 < 2e-16 ***
## new_signing
                  2.7938
                              1.5065
                                       1.854 0.064552
## new_foreign
                  3.1388
                              3.0136
                                       1.042 0.298370
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 9.543 on 336 degrees of freedom
## Multiple R-squared: 0.4835, Adjusted R-squared: 0.4712
## F-statistic: 39.31 on 8 and 336 DF, p-value: < 2.2e-16
epl.lmfit2.y = predict(epl.lmfit2, newdata=test)
mean((test$market_value-epl.lmfit2.y)^2)
## [1] 45.39423
We do a stepwise search with natural spline included in our model. The search found us this model
(\text{market\_value} \sim \text{big\_club} + \text{ns}(\text{age}, 3) + \text{position\_cat} + \text{new\_signing}). It has a test MSE of 81.
start.model2=lm(market_value~1,data=epl)
end.model2 =lm(market_value~ns(age,3)+position_cat+region+big_club+new_signing+new_foreign,data=epl)
step(start.model2, scope=list(lower=start.model2,upper=end.model2),direction="forward")
## Start: AIC=2307.44
## market value ~ 1
##
##
                  Df Sum of Sq
                                  RSS
                        24312.9 44769 2109.9
## + big_club
                    1
## + ns(age, 3)
                    3
                         6293.9 62788 2269.5
## + position_cat
                   1
                         3318.5 65763 2286.8
## + new_signing
                    1
                         1185.0 67897 2301.5
## + region
                          713.9 68368 2304.7
                    1
## + new_foreign
                    1
                          662.1 68420 2305.0
## <none>
                                69082 2307.4
##
## Step: AIC=2109.9
## market_value ~ big_club
##
                  Df Sum of Sq
##
                                  RSS
                                          ATC
## + ns(age, 3)
                    3
                         5672.8 39096 2053.6
## + position_cat 1
                         3617.8 41151 2073.1
## + new_signing
                    1
                          840.6 43928 2103.2
## + region
                          426.1 44343 2107.5
                    1
## <none>
                                44769 2109.9
## + new_foreign
                          173.9 44595 2110.1
                    1
##
## Step: AIC=2053.57
## market_value ~ big_club + ns(age, 3)
```

```
##
##
                 Df Sum of Sq
                                RSS
                                        ATC
## + position_cat 1
                      2899.15 36197 2020.1
## + new_signing
                 1
                       637.36 38459 2048.0
## <none>
                               39096 2053.6
                       134.52 38962 2054.0
## + region
                   1
## + new foreign
                        61.90 39034 2054.8
                  1
##
## Step: AIC=2020.13
## market_value ~ big_club + ns(age, 3) + position_cat
                Df Sum of Sq RSS
##
## + new_signing 1
                      411.77 35785 2016.9
## <none>
                              36197 2020.1
## + new_foreign 1
                        83.76 36113 2021.1
## + region
                  1
                        55.32 36142 2021.4
##
## Step: AIC=2016.87
## market_value ~ big_club + ns(age, 3) + position_cat + new_signing
##
                Df Sum of Sq
                               RSS
                                       AIC
                              35785 2016.9
                     124.548 35661 2017.3
## + new_foreign 1
## + region
                 1
                      15.495 35770 2018.7
##
## Call:
## lm(formula = market_value ~ big_club + ns(age, 3) + position_cat +
##
      new_signing, data = epl)
##
## Coefficients:
## (Intercept)
                     big_club
                                ns(age, 3)1
                                              ns(age, 3)2
                                                            ns(age, 3)3
                                     7.587
        -4.657
                      15.904
                                                   29.399
                                                                 -4.010
##
## position_cat
                 new_signing
##
        -2.497
                        2.708
step(end.model2, scope=list(lower=start.model2,upper=end.model2),direction="backward")
## Start: AIC=2019.14
## market_value ~ ns(age, 3) + position_cat + region + big_club +
##
      new_signing + new_foreign
##
##
                 Df Sum of Sq
                                RSS
                                        AIC
                  1
                           9.7 35661 2017.3
## - region
## - new_foreign
                 1
                         118.7 35770 2018.7
## <none>
                               35651 2019.1
## - new_signing
                   1
                        414.2 36065 2022.5
## - position_cat 1
                       2658.9 38310 2050.2
## - ns(age, 3)
                        4607.3 40258 2069.1
                  3
## - big_club
                       23718.9 59370 2251.8
                   1
##
## Step: AIC=2017.26
## market_value ~ ns(age, 3) + position_cat + big_club + new_signing +
##
      new_foreign
##
```

```
##
                 Df Sum of Sq
                                RSS
                        124.5 35785 2016.9
## - new_foreign
                 1
## <none>
                               35661 2017.3
                        452.6 36113 2021.1
## - new_signing
                   1
## - position_cat 1
                        2690.0 38351 2048.7
## - ns(age, 3)
                  3
                       4748.4 40409 2068.8
## - big club
                       23818.5 59479 2250.6
##
## Step: AIC=2016.87
## market_value ~ ns(age, 3) + position_cat + big_club + new_signing
##
                 Df Sum of Sq
                               RSS
                                        AIC
## <none>
                               35785 2016.9
## - new_signing
                        411.8 36197 2020.1
## - position_cat 1
                        2673.6 38459 2048.0
## - ns(age, 3)
                   3
                        4851.2 40636 2069.3
## - big_club
                       24168.2 59953 2252.2
                   1
##
## Call:
## lm(formula = market_value ~ ns(age, 3) + position_cat + big_club +
      new_signing, data = epl)
##
## Coefficients:
                                             ns(age, 3)3 position_cat
##
   (Intercept)
                 ns(age, 3)1
                               ns(age, 3)2
##
        -4.657
                       7.587
                                     29.399
                                                   -4.010
##
       big_club
                 new_signing
##
         15.904
                        2.708
#both forward and backward model selection give the same outbut
epl.forwardfit2=lm(market_value~big_club+ns(age,3)+position_cat+new_signing,data=train)
summary(epl.forwardfit2)
##
## Call:
## lm(formula = market_value ~ big_club + ns(age, 3) + position_cat +
##
      new_signing, data = train)
##
## Residuals:
               10 Median
                                30
                            3.599 47.369
## -24.672 -5.190 -0.581
##
## Coefficients:
               Estimate Std. Error t value Pr(>|t|)
                            2.6917 -0.255 0.799058
                -0.6858
## (Intercept)
## big_club
                16.9153
                            1.1052 15.305 < 2e-16 ***
## ns(age, 3)1
                 5.3702
                            2.3087
                                    2.326 0.020607 *
## ns(age, 3)2
                22.9828
                            5.9760
                                    3.846 0.000144 ***
## ns(age, 3)3
                -3.6820
                            3.6286 -1.015 0.310969
                            0.5306 -5.267 2.47e-07 ***
## position_cat -2.7945
## new_signing
                 2.7789
                            1.4711
                                    1.889 0.059743 .
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
##
```

```
## Residual standard error: 9.535 on 338 degrees of freedom
## Multiple R-squared: 0.4813, Adjusted R-squared: 0.472
## F-statistic: 52.26 on 6 and 338 DF, p-value: < 2.2e-16
epl.forwardfit2.y = predict(epl.forwardfit2, newdata=test)
mean((test$market_value-epl.forwardfit2.y)^2)</pre>
```

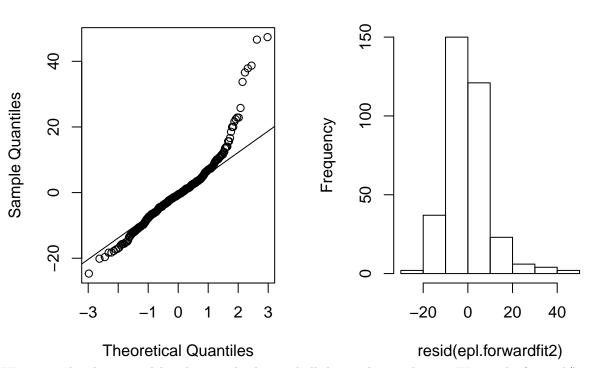
[1] 45.44001

The Normal QQ plot of the model residule is sorta linear. The error is almost gausian.

```
#checking normality of the residuals
par(mfrow=c(1,2))
qqnorm(epl.forwardfit2$resid)
qqline(epl.forwardfit2$resid)
hist(resid(epl.forwardfit2))
```

Normal Q-Q Plot

Histogram of resid(epl.forwardfit



We try one last linear model with natural spline and all the one-hot predictors. We use the forward/backword stepwise search for predictors. The best performing AIC model is (market_value ~ fpl_value + page_views + ns(age, 3) + big_club + fpl_points + nationalityBelgium + positionDM + nationalityNorway + clubManchester+City + nationalityFrance + positionCF + clubChelsea + positionSS + clubSouthampton + clubBurnley + nationalityCzech Republic + clubLiverpool + nationalityEcuador + new_foreign + positionRW + positionLW)

It gives us the best test MSE with 30.

```
start.model3=lm(market_value~1,data=epl)
end.model3 =lm(market_value~ns(age,3) + .,data=epl)

#step(start.model3, scope=list(lower=start.model3,upper=end.model3),direction="forward")
#step(end.model3, scope=list(lower=start.model3,upper=end.model3),direction="backward")
all_pred_step <- step(start.model3, scope=list(lower=start.model3,upper=end.model3), direction="both")</pre>
```

```
## Start: AIC=2307.44
## market_value ~ 1
##
##
                                      Df Sum of Sq RSS
                                                            AIC
## + fpl_value
                                             43046 26036 1860.6
## + page views
                                             37782 31300 1945.3
## + fpl_points
                                             26130 42952 2090.8
                                             24313 44769 2109.9
## + big_club
                                      1
## + `clubManchester+City`
                                       1
                                              6168 62913 2266.4
## + clubChelsea
                                              5799 63283 2269.1
                                      1
## + ns(age, 3)
                                              6294 62788 2269.5
                                              4093 64989 2281.3
## + nationalityBelgium
                                       1
## + position_cat
                                       1
                                              3318 65763 2286.8
                                              2999 66083 2289.0
## + clubTottenham
                                      1
## + clubHuddersfield
                                              2519 66563 2292.3
                                      1
## + `clubManchester+United`
                                      1
                                              2406 66676 2293.1
## + clubArsenal
                                              2215 66867 2294.4
                                       1
## + nationalityEngland
                                              1715 67367 2297.9
## + `clubBrighton+and+Hove`
                                              1670 67412 2298.2
                                      1
## + nationalityBrazil
                                       1
                                              1418 67664 2299.9
## + nationalityChile
                                       1
                                              1304 67778 2300.7
## + nationalityFrance
                                              1279 67803 2300.8
                                             1237 67845 2301.1
## + age
                                      1
## + new signing
                                      1
                                              1185 67897 2301.5
                                              996 68086 2302.8
## + nationalitySpain
                                      1
## + clubBournemouth
                                      1
                                               951 68131 2303.1
## + clubBurnley
                                      1
                                               935 68147 2303.2
                                               869 68213 2303.6
## + clubWatford
                                      1
                                              803 68279 2304.1
## + clubLiverpool
                                      1
## + clubSwansea
                                      1
                                              789 68292 2304.2
## + `clubNewcastle+United`
                                      1
                                               746 68336 2304.4
## + region
                                       1
                                               714 68368 2304.7
## + nationalityScotland
                                       1
                                               673 68409 2304.9
## + positionGK
                                               664 68418 2305.0
                                       1
## + new foreign
                                       1
                                              662 68420 2305.0
## + nationalityIreland
                                             659 68422 2305.0
                                      1
## + `clubWest+Brom`
                                     1
                                             643 68439 2305.1
## + positionCF
                                      1
                                              596 68486 2305.4
## + nationalityArmenia
                                       1
                                               576 68506 2305.6
## + positionCB
                                               439 68643 2306.5
                                       1
## + `clubStoke+City`
                                               409 68673 2306.7
## + positionLM
                                       1
                                               402 68680 2306.8
                                               395 68686 2306.8
## + positionRB
## <none>
                                                   69082 2307.4
                                               293 68789 2307.5
## + `nationalityNorthern Ireland`
                                               281 68801 2307.6
## + positionLB
                                       1
## + nationalityAustralia
                                       1
                                               268 68814 2307.7
## + `clubCrystal+Palace`
                                               239 68842 2307.8
                                       1
## + positionLW
                                       1
                                               201 68881 2308.1
## + nationalityKenya
                                       1
                                               196 68886 2308.1
## + nationalityPoland
                                               171 68911 2308.3
                                      1
                                              168 68914 2308.3
## + nationalityIsrael
                                     1
## + nationalityJamaica
                                      1
                                              164 68918 2308.3
                                               159 68923 2308.4
## + nationalityAustria
                                       1
```

##	_	aluh id	1	1/0	60020	2308.4
		<pre>club_id `clubLeicester+City`</pre>	1			2308.5
		·	1			2308.5
		nationalityWales	1			2308.6
		nationalityGermany	1			2308.7
		nationalityFinland				
		`clubWest+Ham`	1			2308.7
		nationalitySlovenia	1			2308.7
		`nationalityTrinidad and Tobago`	1			2308.7
		nationalityMali	1			2308.7
		nationalityTunisia	1			2308.8
		`nationalityUnited States`	1			2308.8
		`nationalityCzech Republic`	1			2308.8
		`nationalityCote d'Ivoire`	1			2308.8
		nationalityCuracao	1			2308.9
		nationalityGreece	1			2308.9
		nationalitySenegal	1			2309.0
		positionDM	1			2309.0
		nationalityCanada	1			2309.0
		nationalityRomania	1			2309.0
		`nationalityThe Gambia`	1	65	69017	2309.0
##	+	nationalityEstonia	1	57	69025	2309.1
		nationalityUruguay	1	57	69025	2309.1
##	+	nationalityArgentina	1	54	69027	2309.1
##	+	nationalityJapan	1	51	69031	2309.1
##	+	positionRW	1	47	69035	2309.1
##	+	nationalitySwitzerland	1	45	69036	2309.1
##	+	nationalitySerbia	1	45	69037	2309.1
##	+	nationalityNetherlands	1	44	69038	2309.1
##	+	nationalityBermuda	1	36	69045	2309.2
##	+	nationalityCroatia	1	36	69046	2309.2
##	+	nationalityEcuador	1	29	69053	2309.2
##	+	nationalityPortugal	1	29	69053	2309.2
##	+	nationalityGhana	1	27	69054	2309.3
		clubEverton	1	26	69056	2309.3
##	+	clubSouthampton	1	25	69056	2309.3
		nationalityNigeria	1	24	69058	2309.3
		nationalityColombia	1	16	69066	2309.3
		nationalityVenezuela	1	16	69066	2309.3
		nationalityIceland	1	15	69067	2309.3
		nationalityEgypt	1			2309.4
		`nationalitySouth Korea`	1	10	69072	2309.4
		nationalityNorway	1			2309.4
		nationalitySweden	1			2309.4
		`nationalityCongo DR`	1			2309.4
		nationalityMorocco	1			2309.4
		nationalityDenmark	1			2309.4
		nationalityCameroon	1			2309.4
		nationalityItaly	1			2309.4
		`nationalityNew Zealand`	1			2309.4
		positionRM	1			2309.4
		-	1			2309.4
		positionSS nationalityBosnia	1			2309.4
		nationalityBosnia	1			
	+	positionCM	1	U	09081	2309.4
##						

```
## Step: AIC=1860.57
## market_value ~ fpl_value
##
##
                                      Df Sum of Sq RSS
                                                             AIC
## + big_club
                                               5618 20418 1750.8
## + page_views
                                               3895 22142 1788.0
## + positionCF
                                               2918 23118 1807.9
                                               2598 23438 1814.2
## + position_cat
                                       1
## + fpl_points
                                       1
                                               1757 24279 1830.4
## + clubChelsea
                                       1
                                               1709 24328 1831.3
## + positionDM
                                       1
                                               1499 24537 1835.3
                                       3
                                               1550 24486 1838.3
## + ns(age, 3)
## + `clubManchester+City`
                                              1107 24929 1842.6
                                       1
## + `clubManchester+United`
                                               913 25123 1846.2
                                       1
## + nationalityFrance
                                               820 25216 1847.8
                                       1
## + nationalityEngland
                                       1
                                               577 25459 1852.2
                                               535 25501 1853.0
## + positionCB
                                       1
## + clubHuddersfield
                                               507 25529 1853.5
## + nationalityBelgium
                                               492 25544 1853.8
                                       1
## + clubTottenham
                                       1
                                               488 25549 1853.9
                                               430 25606 1854.9
## + clubBournemouth
                                       1
## + positionSS
                                               324 25712 1856.8
## + nationalityNorway
                                               318 25718 1856.9
                                       1
## + nationalityBrazil
                                               305 25731 1857.1
                                       1
                                               296 25740 1857.3
## + nationalityKenya
                                       1
## + positionRW
                                       1
                                               274 25762 1857.7
## + clubBurnley
                                               252 25784 1858.1
                                       1
## + `clubBrighton+and+Hove`
                                               236 25801 1858.4
                                       1
## + age
                                               230 25806 1858.5
                                       1
## + nationalityScotland
                                               217 25819 1858.7
                                       1
                                               209 25827 1858.9
## + `clubWest+Brom`
                                       1
## + new_signing
                                       1
                                               196 25840 1859.1
## + nationalitySerbia
                                       1
                                               194 25843 1859.1
                                               193 25843 1859.1
## + positionLW
                                       1
## + clubArsenal
                                       1
                                               186 25850 1859.3
                                               173 25863 1859.5
## + positionGK
                                       1
## + positionCM
                                      1
                                               151 25885 1859.9
## + positionLM
                                      1
                                               148 25888 1859.9
## + nationalitySpain
                                       1
                                               144 25892 1860.0
## + clubSwansea
                                               135 25901 1860.2
                                       1
## + nationalityGermany
                                               132 25904 1860.2
## + nationalitySwitzerland
                                               129 25907 1860.3
                                       1
                                               123 25913 1860.4
## + clubWatford
                                       1
## <none>
                                                    26036 1860.6
                                                93 25943 1860.9
## + region
                                                89 25947 1861.0
## + nationalityIceland
                                       1
## + `clubLeicester+City`
                                       1
                                                74 25962 1861.2
## + nationalityEcuador
                                                71 25965 1861.3
                                       1
## + clubLiverpool
                                       1
                                                61 25975 1861.5
## + nationalityIreland
                                       1
                                                 61 25976 1861.5
## + `nationalityNorthern Ireland`
                                                60 25976 1861.5
                                       1
## + `nationalityCzech Republic`
                                       1
                                                58 25978 1861.5
## + `nationalityTrinidad and Tobago`
                                       1
                                                51 25985 1861.7
## + `clubStoke+City`
                                                 51 25985 1861.7
```

##		clubEverton	1	40	OFOOE	1861.8
			1			1861.9
		`nationalityCongo DR` nationalityIsrael	1			1862.0
		•	1			1862.0
		nationalityGreece nationalityArmenia	1			1862.0
		•				
		nationalityCroatia	1			1862.0
		nationalityJapan	1			1862.1
		nationalityChile	1			1862.1
		nationalitySweden	1			1862.1
		nationalityNigeria	1			1862.1
		nationalityArgentina	1			1862.2
		nationalityCanada	1			1862.2
		`nationalityThe Gambia`	1			1862.2
		`clubCrystal+Palace`	1			1862.2
		nationalityCameroon	1			1862.2
		`clubNewcastle+United`	1			1862.2
		`clubWest+Ham`	1			1862.3
		nationalityItaly	1			1862.3
		nationalityVenezuela	1			1862.3
##	+	${\tt nationalityNetherlands}$	1			1862.4
		positionRM	1	12	26024	1862.4
##	+	nationalityTunisia	1	10	26026	1862.4
##	+	nationalityMali	1	10	26026	1862.4
##	+	nationalitySenegal	1	10	26026	1862.4
##	+	new_foreign	1	10	26026	1862.4
##	+	positionLB	1	9	26027	1862.4
##	+	nationalityPortugal	1	9	26028	1862.4
##	+	nationalityGhana	1	8	26028	1862.4
##	+	nationalityBermuda	1	8	26028	1862.4
##	+	nationalityAustralia	1	7	26029	1862.4
##	+	nationalityBosnia	1	7	26029	1862.4
##	+	nationalityWales	1	6	26030	1862.5
##	+	nationalityMorocco	1	6	26031	1862.5
		clubSouthampton	1	5	26031	1862.5
##	+	nationalityCuracao	1	5	26031	1862.5
		`nationalityNew Zealand`	1	5	26031	1862.5
		positionRB	1	5	26032	1862.5
		`nationalitySouth Korea`	1	3	26033	1862.5
		nationalityPoland	1	2	26035	1862.5
		nationalityRomania	1	1	26035	1862.5
		nationalityDenmark	1			1862.5
		nationalityEgypt	1			1862.5
		nationalityColombia	1			1862.6
		nationalityAustria	1			1862.6
		nationalityEstonia	1			1862.6
		nationalityUruguay	1			1862.6
		nationalityJamaica	1			1862.6
		nationalityFinland	1			1862.6
		club_id	1			1862.6
		`nationalityUnited States`	1			1862.6
		`nationalityCote d'Ivoire`	1			1862.6
		nationalitySlovenia	1			1862.6
		fpl_value	1			2307.4
##	_	ThT_narme	T	43040	03002	2001.4
##						

```
## Step: AIC=1750.75
## market_value ~ fpl_value + big_club
##
##
                                       Df Sum of Sq RSS
                                                             AIC
## + ns(age, 3)
                                             1980.8 18437 1709.8
                                             1692.8 18725 1712.9
## + page views
## + positionCF
                                             1666.4 18752 1713.6
                                             1623.0 18795 1714.7
## + fpl_points
                                        1
## + position_cat
                                        1
                                              953.1 19465 1730.8
## + positionDM
                                        1
                                              860.6 19557 1732.9
## + clubLiverpool
                                       1
                                              469.3 19949 1742.1
## + clubChelsea
                                              449.0 19969 1742.5
                                        1
## + nationalityFrance
                                       1
                                              427.1 19991 1743.0
                                              307.9 20110 1745.8
## + nationalityEngland
                                        1
## + nationalityBelgium
                                              259.7 20158 1746.9
                                        1
## + positionCB
                                        1
                                              241.2 20177 1747.3
                                              212.9 20205 1747.9
## + new_signing
                                        1
## + `clubManchester+City`
                                              207.4 20211 1748.1
## + clubSouthampton
                                              190.1 20228 1748.5
                                        1
                                              190.0 20228 1748.5
## + clubArsenal
                                        1
## + clubHuddersfield
                                        1
                                              184.3 20234 1748.6
## + nationalityNorway
                                              163.8 20254 1749.0
## + nationalitySwitzerland
                                              132.4 20286 1749.8
                                       1
## + positionCM
                                        1
                                              131.2 20287 1749.8
                                              127.6 20290 1749.9
## + club id
                                        1
## + positionSS
                                              125.8 20292 1749.9
## + nationalityKenya
                                              117.9 20300 1750.1
                                        1
                                              113.9 20304 1750.2
## + positionLW
                                        1
## + `nationalityCzech Republic`
                                              105.5 20313 1750.4
                                        1
## + nationalityEcuador
                                              104.9 20313 1750.4
                                        1
## + clubBournemouth
                                        1
                                               94.1 20324 1750.6
## <none>
                                                    20418 1750.8
                                               86.7 20331 1750.8
## + region
                                               85.0 20333 1750.8
## + positionLM
                                        1
## + age
                                        1
                                               66.9 20351 1751.2
## + clubEverton
                                               62.0 20356 1751.4
                                        1
## + nationalityEstonia
                                               60.2 20358 1751.4
## + nationalitySenegal
                                               59.1 20359 1751.4
                                        1
## + `clubBrighton+and+Hove`
                                        1
                                               54.8 20363 1751.5
## + `clubWest+Ham`
                                               54.7 20363 1751.5
                                        1
## + clubBurnley
                                               53.9 20364 1751.5
## + nationalityNigeria
                                               53.7 20364 1751.5
                                        1
## + nationalityColombia
                                               52.2 20366 1751.6
                                       1
## + nationalitySerbia
                                               51.0 20367 1751.6
                                        1
                                               48.6 20369 1751.7
## + nationalityScotland
                                       1
                                               46.9 20371 1751.7
## + positionRW
                                        1
## + nationalitySpain
                                        1
                                               40.5 20378 1751.8
## + `clubCrystal+Palace`
                                               32.9 20385 1752.0
## + `nationalityTrinidad and Tobago`
                                               26.7 20391 1752.2
                                        1
## + `clubWest+Brom`
                                        1
                                               24.6 20393 1752.2
## + positionGK
                                               23.3 20395 1752.2
                                        1
## + positionRM
                                               23.2 20395 1752.2
## + nationalityGermany
                                        1
                                               22.9 20395 1752.2
## + `nationalityNew Zealand`
                                               17.7 20400 1752.4
```

##		`alubNarrang+la.Uni+ad`	1	1 = 1	20402	1750 /
		`clubNewcastle+United`	1 1			1752.4
		nationalityGreece	_			1752.4
		`clubLeicester+City`	1			1752.4
		nationalityIceland	1			1752.5
		`clubManchester+United`	1			1752.5
		nationalityEgypt	1			1752.5
		nationalityIsrael	1			1752.5
		nationalitySweden	1			1752.5
		`nationalityNorthern Ireland`	1			1752.5
		nationalityCameroon	1			1752.5
		`clubStoke+City`	1			1752.6
		nationalityArmenia	1			1752.6
		nationalityBrazil	1			1752.6
		nationalityCanada	1			1752.6
		`nationalityThe Gambia`	1			1752.6
##	+	nationalityGhana	1	6.2	20412	1752.6
##	+	nationalityWales	1	5.9	20412	1752.6
##	+	nationalityItaly	1	5.2	20413	1752.6
##	+	nationalityChile	1	4.1	20414	1752.7
##	+	`nationalityCote d'Ivoire`	1	3.8	20414	1752.7
##	+	${\tt nationalityNetherlands}$	1	3.6	20414	1752.7
##	+	nationalityJapan	1	3.4	20415	1752.7
##	+	nationalityAustria	1	3.4	20415	1752.7
##	+	nationalityTunisia	1	3.3	20415	1752.7
##	+	nationalityDenmark	1	3.2	20415	1752.7
##	+	`nationalityUnited States`	1	2.8	20415	1752.7
##	+	nationalityArgentina	1	2.3	20416	1752.7
		nationalityMorocco	1	1.9	20416	1752.7
		clubWatford	1	1.8	20416	1752.7
##	+	`nationalitySouth Korea`	1	1.7	20416	1752.7
		clubSwansea	1	1.6	20416	1752.7
##	+	nationalityPoland	1	1.4	20417	1752.7
		nationalityJamaica	1	0.9	20417	1752.7
		positionLB	1			1752.7
		nationalityCuracao	1			1752.7
		nationalityBermuda	1			1752.7
		nationalityMali	1			1752.7
		clubTottenham	1			1752.7
		nationalityPortugal	1			1752.7
		nationalityUruguay	1			1752.7
		nationalitySlovenia	1			1752.7
		positionRB	1			1752.8
		nationalityFinland	1			1752.8
		`nationalityCongo DR`	1			1752.8
		new_foreign	1			1752.8
		nationalityVenezuela	1			1752.8
		nationalityRomania	1			1752.8
		nationalityCroatia	1			1752.8
		· ·	1			1752.8
		nationalityIreland	1			1752.8
		nationalityIreland				
		nationalityBosnia	1			1752.8
		big_club	1			1860.6
	_	fpl_value	1	24350.9	44/69	∠109.9
##						

```
## Step: AIC=1709.81
## market_value ~ fpl_value + big_club + ns(age, 3)
##
                                      Df Sum of Sq
                                                      RSS
                                                             AIC
## + page_views
                                             2341.4 16096 1649.3
## + fpl_points
                                             1953.2 16484 1660.3
## + positionCF
                                            1345.2 17092 1677.0
                                             961.1 17476 1687.2
## + position_cat
                                       1
## + positionDM
                                       1
                                             713.0 17724 1693.7
## + clubLiverpool
                                       1
                                             429.3 18008 1701.0
## + clubChelsea
                                       1
                                              421.7 18016 1701.2
                                              362.4 18075 1702.7
## + `clubManchester+City`
                                       1
## + clubHuddersfield
                                              313.1 18124 1703.9
                                       1
                                              301.1 18136 1704.2
## + nationalityFrance
                                       1
## + clubArsenal
                                              289.2 18148 1704.5
                                       1
## + nationalityBelgium
                                       1
                                              201.1 18236 1706.8
                                              198.4 18239 1706.8
## + nationalityNorway
                                       1
## + club id
                                              185.0 18252 1707.2
                                              171.0 18266 1707.5
## + new_signing
                                       1
## + clubSouthampton
                                       1
                                              169.9 18267 1707.6
                                              161.2 18276 1707.8
## + clubEverton
                                       1
## + positionCB
                                              158.8 18278 1707.8
                                              135.8 18301 1708.4
## + nationalityEngland
                                       1
## + positionCM
                                              128.1 18309 1708.6
                                       1
## + nationalitySwitzerland
                                             126.4 18311 1708.7
                                       1
## + positionSS
                                       1
                                              117.9 18319 1708.9
## + positionRW
                                              110.8 18326 1709.0
                                       1
                                              108.3 18329 1709.1
## + nationalityEcuador
                                       1
## + clubBurnley
                                             106.3 18331 1709.2
                                       1
## + positionGK
                                              100.0 18337 1709.3
                                       1
## + `nationalityCzech Republic`
                                       1
                                              82.1 18355 1709.8
## <none>
                                                    18437 1709.8
                                               78.3 18359 1709.9
## + `clubBrighton+and+Hove`
## + clubBournemouth
                                               76.7 18361 1709.9
                                        1
                                               73.0 18364 1710.0
## + nationalityColombia
                                       1
                                              71.4 18366 1710.0
## + nationalityKenya
                                       1
## + positionLW
                                               60.7 18377 1710.3
## + nationalityScotland
                                               59.8 18377 1710.3
                                       1
## + positionRM
                                               58.0 18379 1710.4
## + positionLM
                                               57.7 18380 1710.4
## + `nationalityTrinidad and Tobago`
                                               51.6 18386 1710.5
## + nationalityEstonia
                                               50.9 18386 1710.5
                                        1
## + `clubWest+Ham`
                                               46.6 18391 1710.7
                                       1
                                               44.5 18393 1710.7
## + nationalitySerbia
                                               43.6 18394 1710.7
## + `clubStoke+City`
                                               40.1 18397 1710.8
## + nationalityPoland
                                       1
## + `clubCrystal+Palace`
                                       1
                                               27.4 18410 1711.1
## + nationalityIceland
                                               27.2 18410 1711.1
                                       1
## + `clubLeicester+City`
                                       1
                                               26.9 18410 1711.1
## + nationalitySenegal
                                       1
                                               26.7 18410 1711.2
## + nationalityBrazil
                                               26.3 18411 1711.2
                                      1
## + nationalityChile
                                      1
                                               25.6 18412 1711.2
                                      1
## + nationalityEgypt
                                               23.0 18414 1711.2
                                               22.7 18414 1711.2
## + nationalityItaly
```

```
22.2 18415 1711.3
## + `clubManchester+United`
## + nationalitySpain
                                              21.7 18416 1711.3
## + nationalityNetherlands
                                              21.5 18416 1711.3
## + `nationalityThe Gambia`
                                              21.3 18416 1711.3
                                       1
## + region
                                       1
                                              19.5 18418 1711.3
## + nationalityNigeria
                                              19.4 18418 1711.3
                                      1
## + `nationalityNew Zealand`
                                             16.0 18421 1711.4
## + nationalityCanada
                                            13.7 18423 1711.5
                                      1
## + nationalityIsrael
                                      1
                                             11.5 18426 1711.5
## + nationalityArgentina
                                      1
                                             11.1 18426 1711.5
## + `nationalitySouth Korea`
                                      1
                                              8.3 18429 1711.6
## + nationalityJamaica
                                              8.0 18429 1711.6
                                       1
## + `nationalityCongo DR`
                                      1
                                              7.4 18430 1711.6
                                              7.4 18430 1711.6
## + positionLB
                                      1
## + nationalityArmenia
                                              7.2 18430 1711.6
                                      1
## + nationalityCuracao
                                      1
                                              6.5 18431 1711.7
                                               6.2 18431 1711.7
## + nationalityMali
                                      1
## + new foreign
                                      1
                                               6.0 18431 1711.7
## + nationalityUruguay
                                               6.0 18431 1711.7
                                      1
## + nationalityBermuda
                                      1
                                              5.5 18432 1711.7
                                              4.4 18433 1711.7
## + nationalityAustria
                                      1
## + nationalityFinland
                                              4.0 18433 1711.7
                                     1
## + nationalitySlovenia
                                              3.9 18433 1711.7
## + clubTottenham
                                      1
                                              3.8 18433 1711.7
## + nationalityAustralia
                                      1
                                               3.5 18434 1711.7
## + nationalitySweden
                                      1
                                               3.1 18434 1711.7
## + nationalityDenmark
                                               2.8 18434 1711.7
                                       1
                                               2.6 18435 1711.8
## + clubSwansea
                                       1
## + `nationalityUnited States`
                                              2.3 18435 1711.8
                                       1
## + nationalityTunisia
                                              2.3 18435 1711.8
                                       1
## + nationalityJapan
                                       1
                                              2.2 18435 1711.8
## + `nationalityCote d'Ivoire`
                                       1
                                              1.8 18435 1711.8
## + nationalityCameroon
                                       1
                                              1.7 18435 1711.8
                                              1.7 18435 1711.8
## + nationalityPortugal
                                       1
## + nationalityCroatia
                                       1
                                              1.7 18436 1711.8
## + `clubWest+Brom`
                                              1.6 18436 1711.8
                                      1
## + nationalityMorocco
                                      1
                                             1.6 18436 1711.8
## + nationalityGermany
                                     1
                                              1.6 18436 1711.8
## + clubWatford
                                      1
                                               1.4 18436 1711.8
## + nationalityGreece
                                              1.3 18436 1711.8
                                      1
## + nationalityBosnia
                                              1.1 18436 1711.8
## + nationalityIreland
                                              1.0 18436 1711.8
                                      1
## + nationalityVenezuela
                                              0.6 18437 1711.8
                                      1
## + nationalityGhana
                                      1
                                              0.4 18437 1711.8
                                              0.3 18437 1711.8
## + nationalityWales
                                      1
                                              0.3 18437 1711.8
## + nationalityRomania
                                       1
## + `nationalityNorthern Ireland`
                                       1
                                               0.2 18437 1711.8
## + `clubNewcastle+United`
                                       1
                                               0.2 18437 1711.8
## + positionRB
                                       1
                                               0.0 18437 1711.8
## - ns(age, 3)
                                       3
                                            1980.8 20418 1750.8
                                            6049.0 24486 1838.3
## - big_club
                                       1
                                           20658.9 39096 2053.6
## - fpl_value
##
## Step: AIC=1649.34
```

```
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views
##
                                       Df Sum of Sq
##
                                                      RSS
## + fpl_points
                                             1355.3 14740 1610.9
## + positionCF
                                             1220.1 14876 1615.1
## + position cat
                                              845.0 15251 1626.5
## + `clubManchester+City`
                                              591.3 15504 1634.1
                                              435.6 15660 1638.7
## + positionDM
                                        1
## + positionSS
                                        1
                                              367.5 15728 1640.7
## + nationalityBelgium
                                        1
                                              341.5 15754 1641.5
## + clubLiverpool
                                        1
                                              320.7 15775 1642.1
## + clubChelsea
                                              282.3 15814 1643.2
                                        1
## + clubArsenal
                                        1
                                              251.9 15844 1644.1
                                              229.9 15866 1644.7
## + club_id
                                              225.4 15870 1644.8
## + clubHuddersfield
                                        1
## + nationalityEngland
                                        1
                                              208.2 15888 1645.3
                                              189.7 15906 1645.9
## + clubSouthampton
                                        1
## + nationalityFrance
                                              177.7 15918 1646.2
                                              164.1 15932 1646.6
## + positionCB
                                        1
## + nationalityNorway
                                        1
                                              150.1 15946 1647.0
## + nationalityEcuador
                                        1
                                               96.4 15999 1648.6
## + nationalitySwitzerland
                                               88.9 16007 1648.8
## + positionRM
                                               80.1 16016 1649.0
                                        1
## + positionGK
                                               80.0 16016 1649.0
                                        1
## + `nationalityCzech Republic`
                                               76.7 16019 1649.1
                                        1
## + clubBournemouth
                                        1
                                               76.0 16020 1649.2
## + clubBurnley
                                               74.8 16021 1649.2
                                        1
                                               73.2 16023 1649.2
## + new_signing
## <none>
                                                    16096 1649.3
## + new_foreign
                                               62.4 16033 1649.5
                                        1
## + nationalityItaly
                                        1
                                               60.4 16035 1649.6
## + nationalityEstonia
                                        1
                                               60.3 16035 1649.6
## + nationalityKenya
                                               59.2 16037 1649.6
                                               58.5 16037 1649.7
## + clubEverton
                                        1
## + nationalityColombia
                                        1
                                               55.5 16040 1649.8
## + positionCM
                                               53.3 16042 1649.8
                                       1
## + `clubWest+Ham`
                                               52.6 16043 1649.8
## + nationalityPoland
                                               52.4 16043 1649.8
                                        1
## + nationalityScotland
                                               51.5 16044 1649.9
## + `clubBrighton+and+Hove`
                                               49.8 16046 1649.9
                                        1
## + nationalitySerbia
                                               47.5 16048 1650.0
## + nationalityArgentina
                                               42.3 16054 1650.1
                                        1
                                               41.2 16054 1650.2
## + nationalityNigeria
                                        1
## + positionLM
                                               38.7 16057 1650.2
                                        1
                                               37.0 16059 1650.3
## + region
## + nationalityChile
                                               35.7 16060 1650.3
                                        1
## + `nationalityTrinidad and Tobago`
                                               34.8 16061 1650.3
## + positionRW
                                               34.4 16061 1650.4
## + `clubManchester+United`
                                        1
                                               33.1 16063 1650.4
## + `clubCrystal+Palace`
                                        1
                                               32.8 16063 1650.4
                                               32.8 16063 1650.4
## + positionLW
                                        1
## + nationalityBrazil
                                       1
                                               28.9 16067 1650.5
## + `clubStoke+City`
                                       1
                                               27.7 16068 1650.5
## + nationalitySenegal
                                               27.5 16068 1650.5
```

```
## + `nationalityThe Gambia`
                                              24.1 16072 1650.7
## + nationalityPortugal
                                              22.1 16074 1650.7
## + `nationalityNew Zealand`
                                              17.9 16078 1650.8
## + nationalitySpain
                                              13.8 16082 1650.9
                                       1
## + clubTottenham
                                              12.8 16083 1651.0
## + `nationalityCote d'Ivoire`
                                              12.6 16083 1651.0
                                       1
## + `nationalitySouth Korea`
                                            12.3 16083 1651.0
                                             12.0 16084 1651.0
## + nationalityCanada
                                       1
## + nationalityAustralia
                                       1
                                              9.8 16086 1651.1
## + nationalityUruguay
                                       1
                                              9.5 16086 1651.1
## + nationalityCuracao
                                       1
                                              8.7 16087 1651.1
                                              8.4 16087 1651.1
## + nationalityIsrael
                                       1
## + `clubNewcastle+United`
                                      1
                                              7.4 16088 1651.1
## + `clubLeicester+City`
                                              7.2 16088 1651.1
                                      1
                                              7.0 16089 1651.1
## + nationalityDenmark
                                      1
## + nationalityNetherlands
                                       1
                                               6.6 16089 1651.2
                                               5.3 16090 1651.2
## + nationalityMorocco
                                       1
## + nationalityMali
                                               4.8 16091 1651.2
## + nationalityEgypt
                                               3.8 16092 1651.2
                                      1
## + nationalityBermuda
                                       1
                                               3.8 16092 1651.2
## + nationalityTunisia
                                      1
                                               3.5 16092 1651.2
## + nationalityFinland
                                              3.5 16092 1651.2
## + nationalityIceland
                                              3.5 16092 1651.2
                                      1
## + nationalitySlovenia
                                               3.0 16093 1651.2
                                      1
                                               2.6 16093 1651.3
## + nationalityArmenia
                                     1
## + nationalitySweden
                                     1
                                               2.3 16093 1651.3
## + `clubWest+Brom`
                                               2.2 16094 1651.3
                                       1
                                              2.0 16094 1651.3
## + nationalityJamaica
                                       1
## + nationalityGhana
                                              1.7 16094 1651.3
                                       1
## + `nationalityNorthern Ireland`
                                             1.6 16094 1651.3
                                       1
## + nationalityVenezuela
                                       1
                                              1.5 16094 1651.3
## + nationalityCameroon
                                       1
                                              1.5 16094 1651.3
## + positionRB
                                       1
                                              1.4 16094 1651.3
                                               1.3 16094 1651.3
## + nationalityIreland
                                       1
## + nationalityAustria
                                       1
                                               1.2 16094 1651.3
## + nationalityJapan
                                              1.2 16095 1651.3
                                      1
## + clubSwansea
                                     1
                                              1.1 16095 1651.3
## + nationalityGermany
                                     1
                                              0.8 16095 1651.3
## + nationalityWales
                                      1
                                              0.8 16095 1651.3
## + `nationalityCongo DR`
                                              0.8 16095 1651.3
                                      1
## + nationalityBosnia
                                              0.4 16095 1651.3
## + clubWatford
                                       1
                                              0.3 16096 1651.3
                                              0.1 16096 1651.3
## + nationalityRomania
                                       1
## + nationalityGreece
                                              0.1 16096 1651.3
                                       1
                                               0.0 16096 1651.3
## + `nationalityUnited States`
                                       1
## + nationalityCroatia
                                               0.0 16096 1651.3
                                       1
## + positionLB
                                       1
                                               0.0 16096 1651.3
## - page_views
                                       1
                                            2341.4 18437 1709.8
## - ns(age, 3)
                                       3
                                            2629.5 18725 1712.9
## - big_club
                                       1
                                            3526.7 19622 1738.5
                                            5446.6 21542 1781.4
## - fpl_value
                                       1
## Step: AIC=1610.88
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
```

```
##
       fpl_points
##
##
                                      Df Sum of Sq RSS
                                                             AIC
## + `clubManchester+City`
                                             716.0 14024 1590.0
## + positionCF
                                             708.1 14032 1590.2
## + new foreign
                                             410.0 14330 1599.9
## + position_cat
                                              389.5 14351 1600.6
                                             361.6 14379 1601.5
## + positionDM
                                       1
## + clubLiverpool
                                       1
                                             355.9 14384 1601.6
## + nationalityEngland
                                       1
                                             319.6 14421 1602.8
## + positionSS
                                       1
                                             300.7 14440 1603.4
## + nationalityFrance
                                             274.0 14466 1604.2
                                       1
## + nationalityNorway
                                       1
                                             259.7 14481 1604.7
                                             245.8 14495 1605.1
## + nationalityBelgium
                                       1
## + clubChelsea
                                             207.4 14533 1606.4
                                       1
## + clubBournemouth
                                       1
                                             180.0 14560 1607.2
## + clubArsenal
                                             161.1 14579 1607.8
                                       1
## + clubBurnley
                                             143.4 14597 1608.4
                                             116.5 14624 1609.2
## + club id
                                       1
                                              106.7 14634 1609.5
## + region
                                       1
## + clubSouthampton
                                       1
                                             104.7 14636 1609.6
## + positionCB
                                              99.7 14641 1609.8
                                             90.1 14650 1610.1
## + nationalityEcuador
                                       1
## + `nationalityCzech Republic`
                                              85.6 14655 1610.2
                                       1
                                              76.0 14664 1610.5
## + nationalityArgentina
                                       1
## + nationalityScotland
                                       1
                                              75.2 14665 1610.5
## + positionCM
                                              70.9 14670 1610.7
                                       1
                                                    14740 1610.9
## <none>
## + nationalitySwitzerland
                                              63.3 14677 1610.9
## + nationalityEstonia
                                              51.6 14689 1611.3
                                       1
## + nationalityNigeria
                                       1
                                              49.1 14691 1611.3
## + positionRM
                                       1
                                              48.4 14692 1611.4
## + clubHuddersfield
                                              47.7 14693 1611.4
                                              47.6 14693 1611.4
## + new_signing
                                       1
## + nationalitySenegal
                                       1
                                              44.7 14696 1611.5
## + nationalitySerbia
                                              40.7 14700 1611.6
                                       1
## + clubEverton
                                      1
                                              38.5 14702 1611.7
## + nationalityItaly
                                      1
                                              37.1 14703 1611.7
## + positionGK
                                       1
                                              34.7 14706 1611.8
## + `clubNewcastle+United`
                                              31.9 14708 1611.9
                                      1
## + positionLW
                                              30.4 14710 1611.9
## + nationalityBrazil
                                              29.9 14710 1611.9
                                       1
## + positionLM
                                              28.7 14712 1612.0
                                       1
                                              28.6 14712 1612.0
## + nationalityKenya
                                       1
                                              27.9 14713 1612.0
## + nationalityPortugal
                                              26.2 14714 1612.1
## + nationalityColombia
                                       1
## + `nationalityThe Gambia`
                                       1
                                              24.1 14716 1612.1
## + `clubManchester+United`
                                              22.0 14718 1612.2
## + nationalityChile
                                       1
                                              21.4 14719 1612.2
## + `nationalityCote d'Ivoire`
                                       1
                                              18.3 14722 1612.3
## + nationalityCanada
                                              18.0 14722 1612.3
                                       1
## + `nationalityTrinidad and Tobago`
                                              17.5 14723 1612.3
## + `nationalitySouth Korea`
                                       1
                                              17.0 14723 1612.3
## + `clubWest+Ham`
                                              16.9 14724 1612.3
```

```
## + nationalityIceland
                                             15.8 14725 1612.4
## + nationalityPoland
                                             15.5 14725 1612.4
                                             14.0 14726 1612.4
## + positionRW
## + nationalityFinland
                                             12.9 14728 1612.5
                                     1
## + nationalitySpain
                                             12.6 14728 1612.5
## + `clubStoke+City`
                                             12.3 14728 1612.5
                                    1
## + nationalitySweden
                                            12.3 14728 1612.5
                                     1
                                             9.8 14731 1612.6
## + `clubCrystal+Palace`
## + positionLB
                                     1
                                             8.5 14732 1612.6
## + nationalityBosnia
                                     1
                                             7.4 14733 1612.7
## + nationalityCuracao
                                     1
                                             7.4 14733 1612.7
                                              7.1 14733 1612.7
## + `clubWest+Brom`
                                      1
## + nationalityGermany
                                      1
                                             6.9 14734 1612.7
                                             6.6 14734 1612.7
## + positionRB
                                     1
## + nationalityMorocco
                                             5.8 14735 1612.7
                                     1
## + nationalityRomania
                                     1
                                             5.2 14735 1612.7
                                             4.7 14736 1612.7
## + clubSwansea
                                      1
## + `nationalityNew Zealand`
                                              4.7 14736 1612.7
## + `clubLeicester+City`
                                             4.5 14736 1612.7
                                      1
                                             4.3 14736 1612.7
## + nationalityUruguay
                                      1
## + `clubBrighton+and+Hove`
                                      1
                                            3.8 14737 1612.8
## + nationalityJamaica
                                             3.4 14737 1612.8
                                             3.3 14737 1612.8
## + nationalityNetherlands
                                     1
## + nationalityCroatia
                                             3.1 14737 1612.8
                                      1
                                             2.9 14738 1612.8
## + nationalitySlovenia
                                     1
## + nationalityJapan
                                     1
                                             2.7 14738 1612.8
## + nationalityArmenia
                                              2.4 14738 1612.8
                                      1
                                             2.2 14738 1612.8
## + nationalityDenmark
                                      1
## + nationalityGhana
                                             2.0 14738 1612.8
                                     1
## + nationalityGreece
                                     1
                                             2.0 14738 1612.8
                                     1
## + nationalityWales
                                             1.7 14739 1612.8
## + nationalityEgypt
                                     1
                                             1.6 14739 1612.8
## + nationalityAustria
                                             1.1 14739 1612.8
## + nationalityTunisia
                                             0.9 14740 1612.8
                                    1
## + nationalityCameroon
                                      1
                                             0.6 14740 1612.9
                                           0.3 14740 1612.9
## + `nationalityNorthern Ireland`
                                      1
## + `nationalityUnited States`
                                     1
                                            0.3 14740 1612.9
## + nationalityVenezuela
                                      1
                                            0.3 14740 1612.9
## + nationalityAustralia
                                      1
                                             0.2 14740 1612.9
## + clubWatford
                                             0.2 14740 1612.9
## + nationalityIreland
                                             0.1 14740 1612.9
## + nationalityIsrael
                                             0.1 14740 1612.9
                                      1
## + nationalityMali
                                             0.1 14740 1612.9
                                      1
## + `nationalityCongo DR`
                                             0.0 14740 1612.9
                                     1
                                              0.0 14740 1612.9
## + clubTottenham
                                     1
                                              0.0 14740 1612.9
## + nationalityBermuda
                                     1
## - fpl_points
                                     1
                                           1355.3 16096 1649.3
                                           1743.6 16484 1660.3
## - page_views
                                     1
## - ns(age, 3)
                                           2831.3 17572 1685.7
                                           2754.3 17495 1687.7
## - fpl_value
                                      1
                                           3497.7 18238 1706.8
## - big_club
## Step: AIC=1589.97
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
```

```
##
       fpl_points + `clubManchester+City`
##
##
                                      Df Sum of Sq RSS
## + positionCF
                                            630.12 13394 1570.8
## + new_foreign
                                             392.45 13632 1578.9
## + clubChelsea
                                            362.17 13662 1579.9
## + nationalityFrance
                                            353.41 13671 1580.2
                                            348.91 13676 1580.4
## + position_cat
                                       1
## + positionDM
                                       1
                                            320.52 13704 1581.3
## + nationalityEngland
                                       1
                                            301.61 13723 1582.0
## + positionSS
                                       1
                                            290.92 13734 1582.3
## + nationalityNorway
                                            257.05 13767 1583.5
                                       1
## + nationalityBelgium
                                       1
                                            246.25 13778 1583.8
                                            189.22 13835 1585.7
## + clubLiverpool
                                       1
## + clubBournemouth
                                            183.61 13841 1585.9
                                       1
## + clubBurnley
                                       1
                                            148.70 13876 1587.1
                                            100.00 13924 1588.7
## + clubSouthampton
                                       1
## + positionCB
                                             93.10 13931 1588.9
## + nationalityScotland
                                             76.97 13947 1589.4
                                       1
## + nationalityEcuador
                                       1
                                             76.13 13948 1589.5
## + region
                                       1
                                             75.61 13949 1589.5
## + nationalityNigeria
                                             74.70 13950 1589.5
## + club_id
                                             74.34 13950 1589.5
                                       1
## + `nationalityCzech Republic`
                                             72.78 13952 1589.6
                                       1
## + nationalitySwitzerland
                                       1
                                              66.21 13958 1589.8
## <none>
                                                    14024 1590.0
## + positionCM
                                       1
                                              58.80 13966 1590.0
                                              57.56 13967 1590.1
## + nationalityArgentina
                                       1
                                             51.31 13973 1590.3
## + clubArsenal
                                       1
## + nationalitySenegal
                                             50.86 13974 1590.3
                                       1
## + clubHuddersfield
                                       1
                                             47.14 13977 1590.4
## + `nationalityCote d'Ivoire`
                                       1
                                             44.79 13980 1590.5
## + nationalityEstonia
                                       1
                                             40.04 13984 1590.7
## + positionRM
                                              39.51 13985 1590.7
                                       1
## + clubEverton
                                       1
                                             39.47 13985 1590.7
## + nationalityKenya
                                             34.34 13990 1590.8
                                       1
## + nationalityItaly
                                             33.59 13991 1590.9
## + positionGK
                                             31.24 13993 1590.9
                                       1
## + `clubNewcastle+United`
                                       1
                                              29.61 13995 1591.0
## + positionLW
                                             27.79 13997 1591.1
                                       1
## + new signing
                                              26.26 13998 1591.1
## + `nationalityThe Gambia`
                                              25.85 13999 1591.1
                                       1
                                              24.36 14000 1591.2
## + nationalitySpain
                                       1
## + positionLM
                                              22.84 14002 1591.2
                                       1
                                              20.99 14003 1591.3
## + clubTottenham
## + nationalitySerbia
                                             19.64 14005 1591.3
                                       1
## + nationalityCanada
                                       1
                                              18.53 14006 1591.4
## + nationalityColombia
                                              17.46 14007 1591.4
## + `nationalityTrinidad and Tobago`
                                              17.33 14007 1591.4
                                       1
## + nationalityPoland
                                       1
                                              16.59 14008 1591.4
                                              16.56 14008 1591.4
## + `clubWest+Ham`
                                       1
## + nationalityPortugal
                                       1
                                             16.45 14008 1591.4
## + nationalitySweden
                                      1
                                              15.37 14009 1591.5
## + nationalityIceland
                                              13.85 14011 1591.5
```

```
## + nationalityFinland
                                            13.81 14011 1591.5
                                            13.36 14011 1591.5
## + `nationalitySouth Korea`
## + `clubStoke+City`
                                            13.02 14011 1591.5
## + nationalityBosnia
                                     1
                                            11.95 14012 1591.6
## + positionRW
                                      1
                                            11.72 14013 1591.6
## + `clubCrystal+Palace`
                                             9.54 14015 1591.7
                                     1
## + nationalityCuracao
                                             8.33 14016 1591.7
                                     1
                                     1
                                             7.14 14017 1591.7
## + positionLB
## + positionRB
                                      1
                                             6.72 14018 1591.8
## + nationalityArmenia
                                     1
                                             6.68 14018 1591.8
## + nationalityMorocco
                                     1
                                             6.37 14018 1591.8
## + nationalityEgypt
                                             5.84 14019 1591.8
                                      1
## + `clubWest+Brom`
                                      1
                                             5.68 14019 1591.8
## + nationalityRomania
                                             5.61 14019 1591.8
## + `clubBrighton+and+Hove`
                                             5.23 14019 1591.8
                                     1
## + clubSwansea
                                      1
                                             5.03 14019 1591.8
## + `clubLeicester+City`
                                             4.84 14020 1591.8
                                      1
## + nationalityUruguay
                                             4.76 14020 1591.8
## + `nationalityNew Zealand`
                                             4.35 14020 1591.8
                                     1
## + nationalityDenmark
                                      1
                                             3.48 14021 1591.9
## + nationalityJamaica
                                     1
                                             3.46 14021 1591.9
## + nationalityChile
                                             3.35 14021 1591.9
                                     1
## + nationalityGhana
                                            2.81 14022 1591.9
                                     1
## + nationalitySlovenia
                                             2.45 14022 1591.9
                                             2.37 14022 1591.9
## + nationalityJapan
                                     1
## + nationalityGreece
                                     1
                                             1.43 14023 1591.9
## + nationalityCameroon
                                             1.36 14023 1591.9
                                     1
## + nationalityTunisia
                                     1
                                             0.88 14024 1591.9
## + nationalityCroatia
                                           0.86 14024 1591.9
                                     1
## + nationalityBrazil
                                     1
                                           0.80 14024 1591.9
                                     1 0.78 14024 1592.0
1 0.61 14024 1592.0
## + nationalityGermany
## + nationalityNetherlands
## + nationalityAustralia
                                           0.50 14024 1592.0
## + nationalityAustria
                                             0.41 14024 1592.0
                                     1
## + nationalityIsrael
                                      1
                                             0.22 14024 1592.0
                                     1 0.21 14024 1592.0
1 0.16 14024 1592.0
## + nationalityWales
## + `nationalityUnited States`
## + nationalityVenezuela
                                      1
                                           0.15 14024 1592.0
                                           0.14 14024 1592.0
## + nationalityIreland
                                      1
## + clubWatford
                                           0.14 14024 1592.0
## + `nationalityNorthern Ireland`
                                           0.12 14024 1592.0
## + `nationalityCongo DR`
                                      1
                                           0.09 14024 1592.0
                                           0.07 14024 1592.0
## + nationalityMali
                                      1
## + nationalityBermuda
                                      1
                                           0.02 14024 1592.0
                                           0.01 14024 1592.0
## + `clubManchester+United`
## - `clubManchester+City`
                                          716.03 14740 1610.9
                                     1
## - fpl_points
                                      1
                                          1480.05 15504 1634.1
                                          1944.98 15969 1647.7
## - page_views
                                      1
## - fpl_value
                                      1
                                          2221.30 16246 1655.6
## - big_club
                                      1
                                          2452.71 16477 1662.1
                                          3161.00 17185 1677.5
## - ns(age, 3)
## Step: AIC=1570.82
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
```

```
##
       fpl_points + `clubManchester+City` + positionCF
##
                                      Df Sum of Sq
##
                                                     RSS
                                                            AIC
## + positionSS
                                            412.12 12982 1558.5
## + nationalityFrance
                                            366.92 13027 1560.0
## + clubChelsea
                                            340.18 13054 1561.0
## + positionDM
                                            304.80 13090 1562.2
                                            295.40 13099 1562.6
## + nationalityBelgium
                                      1
## + nationalityNorway
                                       1
                                            287.84 13106 1562.8
## + new_foreign
                                       1
                                            274.05 13120 1563.3
## + nationalityEngland
                                       1
                                            255.04 13139 1564.0
                                            166.15 13228 1567.1
## + clubLiverpool
                                       1
## + position_cat
                                       1
                                            163.57 13231 1567.2
## + clubBournemouth
                                      1
                                            151.94 13242 1567.6
                                            120.11 13274 1568.7
## + positionLW
                                       1
## + clubBurnley
                                       1
                                            112.20 13282 1569.0
                                            101.24 13293 1569.3
## + clubSouthampton
                                       1
## + nationalityEcuador
                                           90.90 13303 1569.7
                                            80.93 13313 1570.0
## + positionRW
                                       1
## + club id
                                       1
                                             80.13 13314 1570.1
                                          79.34 13315 1570.1
## + `nationalityCzech Republic`
                                       1
## + nationalityScotland
                                         68.40 13326 1570.5
## + nationalitySenegal
                                             66.23 13328 1570.5
                                       1
## + clubHuddersfield
                                             61.77 13332 1570.7
                                       1
                                             60.99 13333 1570.7
## + `nationalityCote d'Ivoire`
                                       1
## + positionCB
                                       1
                                             59.82 13334 1570.8
## + positionRM
                                             59.80 13334 1570.8
                                       1
## <none>
                                                   13394 1570.8
## + nationalitySwitzerland
                                             57.36 13337 1570.8
                                       1
## + region
                                             57.18 13337 1570.9
                                       1
## + clubArsenal
                                       1
                                             55.04 13339 1570.9
## + nationalityArgentina
                                       1
                                             52.23 13342 1571.0
## + nationalityNigeria
                                      1
                                             51.68 13343 1571.0
                                             42.04 13352 1571.4
## + nationalityKenya
                                       1
## + positionLM
                                       1
                                             39.24 13355 1571.5
## + nationalityEstonia
                                             37.59 13357 1571.5
                                       1
## + nationalitySerbia
                                      1
                                             36.61 13358 1571.6
## + `nationalityThe Gambia`
                                     1
                                             30.24 13364 1571.8
## + new_signing
                                       1
                                             26.87 13367 1571.9
## + positionGK
                                             26.71 13368 1571.9
## + nationalityIceland
                                             26.40 13368 1571.9
## + `clubNewcastle+United`
                                             26.25 13368 1571.9
                                       1
## + `nationalityTrinidad and Tobago`
                                       1
                                             23.76 13370 1572.0
## + nationalitySpain
                                             23.12 13371 1572.0
                                       1
## + `clubStoke+City`
                                       1
                                             22.80 13372 1572.0
## + `nationalitySouth Korea`
                                             21.23 13373 1572.1
                                       1
## + nationalityCanada
                                       1
                                             21.09 13373 1572.1
## + nationalityColombia
                                       1
                                             20.12 13374 1572.1
## + `clubWest+Ham`
                                       1
                                             19.21 13375 1572.2
## + positionLB
                                       1
                                             17.39 13377 1572.2
                                             17.34 13377 1572.2
## + clubTottenham
                                     1
## + nationalityPoland
                                     1
                                             15.59 13379 1572.3
## + positionCM
                                     1
                                             14.99 13379 1572.3
## + positionRB
                                       1
                                             14.27 13380 1572.3
```

```
## + nationalityBermuda
                                             11.24 13383 1572.4
                                             11.24 13383 1572.4
## + nationalityFinland
## + nationalitySweden
                                             10.49 13384 1572.5
## + `clubLeicester+City`
                                             10.05 13384 1572.5
                                       1
## + nationalityItaly
                                       1
                                             10.04 13384 1572.5
## + clubEverton
                                      1
                                              9.56 13385 1572.5
## + nationalityCuracao
                                              9.48 13385 1572.5
                                              8.37 13386 1572.5
## + `clubCrystal+Palace`
                                      1
## + nationalityVenezuela
                                      1
                                              7.74 13386 1572.6
## + nationalityPortugal
                                      1
                                              7.32 13387 1572.6
## + nationalityBosnia
                                              5.98 13388 1572.6
## + `clubWest+Brom`
                                              5.84 13388 1572.6
                                       1
## + nationalityNetherlands
                                      1
                                              5.20 13389 1572.7
## + nationalityIsrael
                                              4.96 13389 1572.7
## + nationalityUruguay
                                              4.21 13390 1572.7
                                      1
## + `nationalityNew Zealand`
                                       1
                                              4.00 13390 1572.7
                                              3.14 13391 1572.7
## + nationalityRomania
                                       1
## + `clubBrighton+and+Hove`
                                              3.05 13391 1572.7
## + nationalityJamaica
                                              2.51 13392 1572.7
                                       1
## + nationalityAustralia
                                       1
                                              2.48 13392 1572.7
## + nationalityGreece
                                      1
                                              2.43 13392 1572.7
## + nationalityMorocco
                                              2.14 13392 1572.8
## + nationalityTunisia
                                             1.79 13392 1572.8
                                      1
## + nationalitySlovenia
                                              1.70 13393 1572.8
## + clubSwansea
                                              1.70 13393 1572.8
## + `nationalityNorthern Ireland`
                                             1.38 13393 1572.8
## + nationalityGhana
                                              1.31 13393 1572.8
                                       1
## + clubWatford
                                       1
                                              1.02 13393 1572.8
                                              0.98 13393 1572.8
## + nationalityAustria
                                       1
## + nationalityArmenia
                                              0.73 13394 1572.8
                                      1
## + nationalityCameroon
                                       1
                                              0.68 13394 1572.8
## + nationalityCroatia
                                       1
                                              0.54 13394 1572.8
## + nationalityEgypt
                                              0.38 13394 1572.8
                                              0.36 13394 1572.8
## + nationalityMali
                                      1
## + nationalityJapan
                                      1
                                              0.29 13394 1572.8
## + nationalityDenmark
                                              0.26 13394 1572.8
                                      1
## + `nationalityCongo DR`
                                     1
                                              0.26 13394 1572.8
## + nationalityWales
                                      1
                                              0.19 13394 1572.8
## + nationalityBrazil
                                       1
                                              0.12 13394 1572.8
## + `clubManchester+United`
                                             0.04 13394 1572.8
                                      1
## + nationalityIreland
                                             0.02 13394 1572.8
## + nationalityChile
                                             0.00 13394 1572.8
                                       1
## + nationalityGermany
                                            0.00 13394 1572.8
                                       1
## + `nationalityUnited States`
                                            0.00 13394 1572.8
                                       1
                                         630.12 14024 1590.0
## - positionCF
                                       1
## - `clubManchester+City`
                                          638.02 14032 1590.2
                                       1
## - fpl_points
                                       1
                                           955.08 14349 1600.5
## - page_views
                                       1
                                           1942.67 15337 1631.1
## - big_club
                                       1
                                           2006.61 15401 1633.0
## - ns(age, 3)
                                       3
                                           2799.69 16194 1652.1
                                           2837.34 16232 1657.2
## - fpl_value
## Step: AIC=1558.45
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
```

```
##
       fpl_points + `clubManchester+City` + positionCF + positionSS
##
##
                                      Df Sum of Sq RSS
## + nationalityFrance
                                            335.02 12647 1548.4
## + clubChelsea
                                            317.39 12665 1549.1
## + nationalityBelgium
                                            288.79 12693 1550.1
                                       1
## + positionDM
                                            282.62 12700 1550.3
                                            270.16 12712 1550.8
## + nationalityEngland
                                      1
## + new_foreign
                                      1
                                            252.05 12730 1551.4
## + positionLW
                                      1
                                            160.24 12822 1554.7
## + clubBournemouth
                                      1
                                            125.97 12856 1556.0
## + clubLiverpool
                                            123.42 12859 1556.0
                                      1
## + clubBurnley
                                      1
                                            116.17 12866 1556.3
## + positionRW
                                      1
                                           111.97 12870 1556.5
                                           106.91 12875 1556.6
## + position_cat
                                      1
                                          97.99 12884 1557.0
## + nationalityNorway
                                       1
                                           94.09 12888 1557.1
## + nationalityEcuador
                                      1
## + clubSouthampton
                                           86.36 12896 1557.4
                                           81.66 12900 1557.5
## + club_id
                                      1
## + nationalityArgentina
                                       1
                                             81.49 12901 1557.5
                                       1 80.84 12901 1557.6
## + `nationalityCzech Republic`
## + clubHuddersfield
                                       1 75.69 12906 1557.8
                                      1 75.67 12906 1557.8
1 69.49 12913 1558.0
1 69.10 12913 1558.0
## + nationalityScotland
## + `nationalityCote d'Ivoire`
## + positionRM
## + clubArsenal
                                      1
                                             60.77 12921 1558.3
## + nationalitySenegal
                                             60.19 12922 1558.3
                                       1
                                             58.17 12924 1558.4
## + nationalityNigeria
                                       1
## <none>
                                                   12982 1558.5
                                             55.47 12927 1558.5
## + region
                                       1
## + nationalitySpain
                                       1
                                             53.33 12929 1558.5
## + nationalitySwitzerland
                                     1
                                             51.67 12930 1558.6
## + positionCB
                                     1
                                             49.01 12933 1558.7
## + positionLM
                                             44.33 12938 1558.9
                                     1
## + nationalityKenya
                                      1
                                             44.04 12938 1558.9
## + nationalitySerbia
                                     1
                                             38.56 12944 1559.1
## + nationalityEstonia
                                     1
                                             36.13 12946 1559.2
## + `clubNewcastle+United`
                                     1
                                             35.47 12947 1559.2
## + `clubStoke+City`
                                       1
                                             34.99 12947 1559.2
## + `nationalityThe Gambia`
                                             32.86 12949 1559.3
## + nationalityIceland
                                             29.41 12953 1559.4
## + `nationalityTrinidad and Tobago`
                                             25.45 12957 1559.5
                                       1
## + positionGK
                                       1
                                             24.79 12957 1559.6
## + `nationalitySouth Korea`
                                             24.71 12958 1559.6
                                       1
## + nationalityCanada
                                             22.09 12960 1559.7
## + new_signing
                                             21.53 12961 1559.7
                                       1
## + positionLB
                                       1
                                             20.55 12962 1559.7
## + clubEverton
                                             20.52 12962 1559.7
## + nationalityColombia
                                      1
                                             19.40 12963 1559.8
## + clubTottenham
                                      1
                                             17.90 12964 1559.8
                                     1
                                             17.14 12965 1559.8
## + positionRB
## + nationalityPoland
                                     1
                                             15.25 12967 1559.9
## + `clubWest+Ham`
                                     1
                                             14.04 12968 1560.0
## + nationalityBermuda
                                      1
                                             12.37 12970 1560.0
```

```
## + nationalityItaly
                                           11.87 12970 1560.0
## + nationalityFinland
                                           10.55 12972 1560.1
                                          10.32 12972 1560.1
## + nationalityCuracao
## + nationalityVenezuela
                                            9.09 12973 1560.1
                                    1
## + nationalitySweden
                                     1
                                            9.08 12973 1560.1
## + nationalityNetherlands
                                   1
                                           8.36 12974 1560.2
## + `clubWest+Brom`
                                           7.71 12974 1560.2
                                    1
                                          6.59 12976 1560.2
## + nationalityBrazil
## + nationalityPortugal
                                     1
                                            6.56 12976 1560.2
## + `clubCrystal+Palace`
                                    1
                                            5.21 12977 1560.3
## + positionCM
                                    1
                                            5.08 12977 1560.3
## + nationalityIsrael
                                            4.97 12977 1560.3
                                     1
## + `clubLeicester+City`
                                     1
                                            4.91 12977 1560.3
## + nationalityBosnia
                                     1
                                            4.86 12977 1560.3
## + nationalityUruguay
                                            4.21 12978 1560.3
                                    1
## + nationalityAustralia
                                     1
                                            4.11 12978 1560.3
## + `nationalityNew Zealand`
                                    1
                                            3.82 12978 1560.3
## + clubSwansea
                                            3.56 12979 1560.3
## + nationalityGreece
                                            2.60 12980 1560.4
                                    1
## + nationalityRomania
                                     1
                                            2.49 12980 1560.4
## + nationalityGhana
                                    1
                                           2.47 12980 1560.4
## + nationalityTunisia
                                           2.21 12980 1560.4
## + nationalityJamaica
                                           1.94 12980 1560.4
                                     1
                                        1.86 12980 1560.4
## + `nationalityNorthern Ireland`
## + nationalityMorocco
                                           1.32 12981 1560.4
                                      1
## + nationalitySlovenia
                                      1
                                            1.31 12981 1560.4
## + `clubBrighton+and+Hove`
                                            1.08 12981 1560.4
                                      1
                                            1.04 12981 1560.4
## + nationalityAustria
                                      1
## + nationalityMali
                                            0.77 12981 1560.4
                                     1
## + `clubManchester+United`
                                          0.61 12982 1560.4
                                    1
## + nationalityCameroon
                                     1
                                            0.49 12982 1560.4
## + nationalityGermany
                                     1
                                            0.44 12982 1560.4
## + nationalityIreland
                                    1
                                            0.38 12982 1560.4
## + nationalityWales
                                            0.36 12982 1560.4
                                    1
## + nationalityJapan
                                     1
                                            0.36 12982 1560.4
## + nationalityCroatia
                                            0.27 12982 1560.4
                                     1
## + nationalityChile
                                          0.12 12982 1560.4
## + `nationalityUnited States`
                                    1
                                          0.10 12982 1560.5
                                          0.07 12982 1560.5
## + nationalityEgypt
                                     1
## + `nationalityCongo DR`
                                    1
                                          0.02 12982 1560.5
## + nationalityArmenia
                                           0.01 12982 1560.5
## + nationalityDenmark
                                           0.01 12982 1560.5
                                     1
                                            0.00 12982 1560.5
## + clubWatford
                                     1
## - positionSS
                                     1
                                        412.12 13394 1570.8
                                        619.56 13602 1577.9
## - `clubManchester+City`
                                    1
                                     1
                                         751.32 13734 1582.3
## - positionCF
                                          850.71 13833 1585.7
## - fpl_points
                                     1
                                         1695.22 14677 1612.9
## - big_club
                                     1
## - page_views
                                     1
                                          2200.06 15182 1628.5
## - ns(age, 3)
                                      3
                                          2813.66 15796 1642.7
                                         2942.57 15925 1650.4
## - fpl_value
## Step: AIC=1548.42
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
```

```
##
       fpl_points + `clubManchester+City` + positionCF + positionSS +
##
       nationalityFrance
##
##
                                      Df Sum of Sq
                                                     RSS
                                                            AIC
## + nationalityBelgium
                                            326.07 12321 1538.4
## + clubChelsea
                                            289.52 12358 1539.8
## + new foreign
                                            228.69 12418 1542.0
                                            192.35 12455 1543.4
## + positionDM
                                      1
## + nationalityEngland
                                       1
                                            185.11 12462 1543.6
## + positionLW
                                      1
                                            145.91 12501 1545.1
## + clubBournemouth
                                      1
                                            133.77 12513 1545.5
                                            114.16 12533 1546.2
## + position_cat
                                       1
## + nationalityNorway
                                       1
                                            105.81 12541 1546.6
                                            105.28 12542 1546.6
## + clubBurnley
                                      1
## + positionRW
                                            102.31 12545 1546.7
                                      1
                                           95.67 12552 1546.9
## + nationalityArgentina
                                       1
                                             94.36 12553 1547.0
## + clubLiverpool
                                       1
## + nationalityEcuador
                                             87.10 12560 1547.2
                                             85.93 12561 1547.3
## + positionRM
                                       1
## + clubSouthampton
                                       1
                                             82.76 12564 1547.4
## + club_id
                                       1
                                             78.43 12569 1547.6
## + nationalitySpain
                                             76.13 12571 1547.6
## + `nationalityCzech Republic`
                                             75.14 12572 1547.7
                                       1
## + clubArsenal
                                       1
                                             71.44 12576 1547.8
## + nationalitySenegal
                                       1
                                             70.35 12577 1547.9
## + nationalityScotland
                                       1
                                             67.07 12580 1548.0
## + `nationalityCote d'Ivoire`
                                             63.13 12584 1548.1
                                       1
## + nationalitySwitzerland
                                       1
                                             58.36 12589 1548.3
## + region
                                             57.87 12589 1548.3
                                       1
## + clubHuddersfield
                                             55.02 12592 1548.4
## <none>
                                                   12647 1548.4
## + nationalityNigeria
                                       1
                                             49.68 12598 1548.6
## + nationalityKenya
                                             49.56 12598 1548.6
                                             46.62 12600 1548.7
## + positionCB
                                       1
## + nationalitySerbia
                                       1
                                             45.49 12602 1548.8
## + positionLM
                                             38.67 12608 1549.0
                                       1
## + nationalityEstonia
                                             31.30 12616 1549.3
## + positionGK
                                             31.14 12616 1549.3
                                      1
## + `clubStoke+City`
                                       1
                                             31.05 12616 1549.3
## + `nationalityThe Gambia`
                                             30.30 12617 1549.3
                                       1
## + `clubNewcastle+United`
                                             29.56 12618 1549.3
## + nationalityIceland
                                             28.92 12618 1549.4
                                       1
## + `nationalityTrinidad and Tobago`
                                             23.02 12624 1549.6
                                       1
## + nationalityCanada
                                       1
                                             21.01 12626 1549.7
## + `nationalitySouth Korea`
                                             20.65 12626 1549.7
                                             19.83 12627 1549.7
## + clubEverton
                                       1
## + `clubWest+Ham`
                                       1
                                             18.68 12628 1549.7
## + positionLB
                                             16.03 12631 1549.8
## + nationalityColombia
                                       1
                                             15.20 12632 1549.9
## + nationalityPoland
                                       1
                                             14.79 12632 1549.9
## + nationalityBermuda
                                     1
                                             14.54 12633 1549.9
## + nationalitySweden
                                     1
                                             12.70 12634 1550.0
## + nationalityFinland
                                     1
                                             11.65 12636 1550.0
## + nationalityBrazil
                                      1
                                             11.37 12636 1550.0
```

```
9.92 12637 1550.1
## + clubTottenham
                                            9.61 12638 1550.1
## + positionRB
## + nationalityVenezuela
                                            9.38 12638 1550.1
## + nationalityCuracao
                                    1
                                            8.98 12638 1550.1
## + nationalityPortugal
                                     1
                                            8.80 12638 1550.1
## + nationalityBosnia
                                            7.66 12640 1550.1
                                    1
## + nationalityItaly
                                            7.61 12640 1550.1
## + nationalityIsrael
                                    1
                                            6.53 12641 1550.2
## + new_signing
                                    1
                                            6.45 12641 1550.2
## + `clubWest+Brom`
                                    1
                                            6.29 12641 1550.2
## + `clubLeicester+City`
                                            4.68 12642 1550.2
## + positionCM
                                            4.39 12643 1550.3
                                     1
## + nationalityUruguay
                                    1
                                            4.25 12643 1550.3
## + `nationalityNew Zealand`
                                    1
                                            3.95 12643 1550.3
## + `clubCrystal+Palace`
                                            3.93 12643 1550.3
                                     1
## + nationalityNetherlands
                                     1
                                            3.43 12644 1550.3
## + clubWatford
                                            3.24 12644 1550.3
                                     1
## + nationalityRomania
                                            3.23 12644 1550.3
## + nationalityGreece
                                            2.71 12644 1550.3
                                    1
## + nationalityJamaica
                                    1
                                            2.52 12645 1550.3
                                          2.25 12645 1550.3
## + nationalityAustralia
                                   1
## + nationalityMorocco
                                           1.78 12645 1550.4
## + nationalityTunisia
                                    1
                                           1.73 12645 1550.4
## + nationalitySlovenia
                                     1
                                           1.70 12646 1550.4
## + `clubBrighton+and+Hove`
                                           1.69 12646 1550.4
                                    1
## + `nationalityNorthern Ireland`
                                    1
                                           1.55 12646 1550.4
## + clubSwansea
                                            1.34 12646 1550.4
                                     1
## + nationalityCameroon
                                     1
                                            1.27 12646 1550.4
## + nationalityGhana
                                           1.19 12646 1550.4
                                     1
## + nationalityEgypt
                                    1
                                          0.92 12646 1550.4
## + nationalityArmenia
                                     1
                                            0.58 12647 1550.4
## + nationalityJapan
                                     1
                                            0.56 12647 1550.4
## + nationalityGermany
                                            0.41 12647 1550.4
                                            0.40 12647 1550.4
## + nationalityAustria
                                    1
## + `nationalityCongo DR`
                                     1
                                            0.30 12647 1550.4
## + nationalityMali
                                    1
                                            0.28 12647 1550.4
## + nationalityDenmark
                                    1
                                          0.23 12647 1550.4
## + nationalityChile
                                    1
                                          0.06 12647 1550.4
## + nationalityCroatia
                                    1
                                           0.05 12647 1550.4
## + `clubManchester+United`
                                          0.04 12647 1550.4
                                   1
## + nationalityWales
                                          0.00 12647 1550.4
## + nationalityIreland
                                          0.00 12647 1550.4
                                     1
                                           0.00 12647 1550.4
## + `nationalityUnited States`
                                     1
## - nationalityFrance
                                     1 335.02 12982 1558.5
                                     1 380.21 13027 1560.0
## - positionSS
                                     1 691.68 13339 1570.9
## - `clubManchester+City`
## - positionCF
                                     1
                                        760.06 13407 1573.3
## - fpl_points
                                         940.28 13587 1579.4
                                     1
## - big_club
                                     1
                                         1542.39 14190 1599.4
## - page_views
                                     1
                                         2020.08 14667 1614.6
                                     3
                                         2656.60 15304 1630.1
## - ns(age, 3)
                                         2989.51 15637 1644.0
## - fpl_value
##
## Step: AIC=1538.41
```

```
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
##
       fpl_points + `clubManchester+City` + positionCF + positionSS +
       nationalityFrance + nationalityBelgium
##
##
                                      Df Sum of Sq
                                                      RSS
                                             256.35 12065 1530.7
## + new foreign
## + clubChelsea
                                             246.55 12074 1531.1
## + positionDM
                                             206.01 12115 1532.7
                                       1
## + positionLW
                                       1
                                             152.09 12169 1534.7
## + nationalityEngland
                                       1
                                             129.34 12192 1535.5
## + clubBournemouth
                                       1
                                             120.42 12201 1535.9
## + nationalityArgentina
                                             114.84 12206 1536.1
                                       1
## + clubBurnley
                                            113.12 12208 1536.2
                                       1
## + nationalitySpain
                                            108.89 12212 1536.3
                                             104.11 12217 1536.5
## + position_cat
                                       1
## + nationalityNorway
                                       1
                                             97.24 12224 1536.8
                                             95.78 12225 1536.8
## + positionRW
                                       1
## + clubSouthampton
                                             93.31 12228 1536.9
                                             88.93 12232 1537.1
## + clubLiverpool
                                       1
## + nationalitySenegal
                                       1
                                             81.66 12239 1537.3
## + positionRM
                                             81.33 12240 1537.4
## + nationalityEcuador
                                             79.27 12242 1537.4
## + `nationalityCzech Republic`
                                             71.45 12250 1537.7
                                       1
## + club id
                                             69.60 12252 1537.8
## + clubHuddersfield
                                             69.54 12252 1537.8
                                       1
## + region
                                       1
                                              64.06 12257 1538.0
## + nationalitySwitzerland
                                             61.41 12260 1538.1
                                       1
                                              59.52 12262 1538.2
## + nationalityScotland
                                       1
## + `nationalityCote d'Ivoire`
                                              56.08 12265 1538.3
                                       1
## + nationalityKenya
                                              55.41 12266 1538.3
## <none>
                                                    12321 1538.4
## + nationalitySerbia
                                              52.95 12268 1538.4
                                       1
## + nationalityNigeria
                                              42.86 12278 1538.8
                                              38.28 12283 1539.0
## + clubArsenal
                                       1
## + `clubStoke+City`
                                       1
                                              36.16 12285 1539.0
                                              35.11 12286 1539.1
## + positionLM
                                       1
## + positionCB
                                             34.55 12286 1539.1
## + `nationalityThe Gambia`
                                              30.14 12291 1539.3
                                       1
## + nationalityEstonia
                                              28.35 12293 1539.3
## + `clubNewcastle+United`
                                              27.52 12294 1539.4
                                       1
## + `clubWest+Ham`
                                              26.17 12295 1539.4
## + nationalityIceland
                                              23.31 12298 1539.5
                                        1
## + positionGK
                                              23.29 12298 1539.5
                                        1
## + `nationalityTrinidad and Tobago`
                                              22.46 12299 1539.6
## + nationalityBrazil
                                              22.17 12299 1539.6
                                              19.30 12302 1539.7
## + nationalityCanada
                                        1
## + `nationalitySouth Korea`
                                       1
                                              16.62 12304 1539.8
## + nationalityBermuda
                                              16.25 12305 1539.8
## + nationalityPoland
                                       1
                                              14.75 12306 1539.9
## + clubEverton
                                       1
                                              14.52 12307 1539.9
## + nationalitySweden
                                              14.08 12307 1539.9
                                       1
## + nationalityVenezuela
                                      1
                                             13.10 12308 1539.9
## + nationalityColombia
                                      1
                                             12.86 12308 1539.9
## + nationalityPortugal
                                              12.25 12309 1540.0
```

```
11.20 12310 1540.0
## + nationalityFinland
                                              8.88 12312 1540.1
## + positionLB
                                              8.70 12312 1540.1
## + nationalityBosnia
## + nationalityCuracao
                                              8.60 12312 1540.1
                                      1
## + `clubWest+Brom`
                                      1
                                              8.38 12313 1540.1
## + `clubLeicester+City`
                                             7.96 12313 1540.1
                                      1
## + nationalityIsrael
                                             7.52 12314 1540.1
                                     1
## + clubWatford
                                              5.92 12315 1540.2
## + nationalityItaly
                                      1
                                              5.28 12316 1540.2
## + `nationalityNew Zealand`
                                     1
                                              5.02 12316 1540.2
## + nationalityUruguay
                                      1
                                              4.73 12316 1540.2
                                              4.40 12317 1540.2
## + positionRB
                                      1
## + clubTottenham
                                      1
                                              4.08 12317 1540.2
                                              3.28 12318 1540.3
## + nationalityRomania
                                     1
## + nationalityAustralia
                                              2.61 12318 1540.3
                                     1
## + nationalityJamaica
                                     1
                                              2.49 12319 1540.3
## + nationalityGreece
                                     1
                                              2.31 12319 1540.3
## + nationalityMorocco
                                              2.30 12319 1540.3
## + `clubCrystal+Palace`
                                              2.26 12319 1540.3
                                     1
## + nationalityCameroon
                                      1
                                              2.21 12319 1540.3
## + nationalityGermany
                                      1
                                             1.91 12319 1540.3
## + nationalityEgypt
                                             1.74 12319 1540.3
                                     1
                                             1.66 12319 1540.3
## + `clubBrighton+and+Hove`
## + nationalityTunisia
                                      1
                                             1.59 12320 1540.3
## + positionCM
                                     1
                                             1.52 12320 1540.3
## + new_signing
                                     1
                                             1.38 12320 1540.4
## + nationalitySlovenia
                                              1.32 12320 1540.4
                                      1
                                             1.28 12320 1540.4
## + nationalityArmenia
                                      1
## + nationalityJapan
                                     1
                                             1.28 12320 1540.4
## + nationalityNetherlands
                                      1
                                           1.18 12320 1540.4
## + `nationalityNorthern Ireland`
                                      1
                                             0.94 12320 1540.4
## + nationalityDenmark
                                      1
                                             0.78 12320 1540.4
## + nationalityGhana
                                              0.76 12320 1540.4
## + `nationalityCongo DR`
                                              0.76 12320 1540.4
                                      1
                                              0.47 12321 1540.4
## + nationalityChile
                                      1
## + nationalityWales
                                             0.36 12321 1540.4
                                      1
## + clubSwansea
                                     1
                                             0.36 12321 1540.4
## + nationalityMali
                                     1
                                             0.23 12321 1540.4
## + nationalityIreland
                                     1
                                             0.17 12321 1540.4
                                             0.11 12321 1540.4
## + nationalityAustria
                                     1
## + nationalityCroatia
                                             0.10 12321 1540.4
                                             0.05 12321 1540.4
## + `clubManchester+United`
                                      1
                                             0.01 12321 1540.4
## + `nationalityUnited States`
                                      1
                                           326.07 12647 1548.4
## - nationalityBelgium
                                      1
                                           371.77 12693 1550.1
## - positionSS
                                      1
                                           372.29 12693 1550.1
## - nationalityFrance
                                      1
## - `clubManchester+City`
                                      1
                                           693.55 13015 1561.6
## - positionCF
                                           815.64 13137 1565.9
                                      1
## - fpl_points
                                      1
                                           844.16 13165 1566.9
                                           1355.71 13677 1584.4
## - big_club
                                      1
                                      1
                                          2151.80 14473 1610.5
## - page_views
                                      3
                                          2593.07 14914 1620.3
## - ns(age, 3)
## - fpl_value
                                           2810.69 15132 1630.9
##
```

```
## Step: AIC=1530.73
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
       nationalityFrance + nationalityBelgium + new_foreign
##
##
##
                                                             AIC
                                      Df Sum of Sq
                                                      RSS
## + clubChelsea
                                             200.10 11865 1525.0
                                             172.82 11892 1526.1
## + positionDM
                                       1
## + nationalityArgentina
                                       1
                                            140.95 11924 1527.3
## + clubBournemouth
                                       1
                                            121.54 11943 1528.1
## + clubBurnley
                                       1
                                            115.16 11950 1528.3
## + positionLW
                                            107.94 11957 1528.6
                                       1
                                          102.48 11962 1528.8
## + nationalityEngland
                                       1
## + nationalityNorway
                                       1
                                          99.89 11965 1528.9
## + nationalitySenegal
                                            90.74 11974 1529.3
                                       1
## + clubSouthampton
                                       1
                                             83.91 11981 1529.5
                                             82.26 11982 1529.6
## + clubLiverpool
                                       1
## + positionRW
                                             80.62 11984 1529.7
                                             74.24 11990 1529.9
## + nationalityEcuador
                                       1
## + `nationalityCzech Republic`
                                       1
                                             67.41 11997 1530.2
## + positionRM
                                       1
                                             66.09 11999 1530.2
## + region
                                             63.48 12001 1530.3
## + nationalitySwitzerland
                                             63.08 12002 1530.3
                                       1
## + position cat
                                             60.11 12005 1530.4
                                             59.67 12005 1530.5
## + nationalitySpain
                                       1
## + club id
                                       1
                                             56.43 12008 1530.6
## + nationalityScotland
                                             56.28 12008 1530.6
                                       1
                                             56.00 12009 1530.6
## + nationalitySerbia
## <none>
                                                    12065 1530.7
## + nationalityKenya
                                             52.34 12012 1530.7
                                       1
## + `nationalityCote d'Ivoire`
                                       1
                                             51.36 12013 1530.8
## + `clubNewcastle+United`
                                       1
                                             49.52 12015 1530.8
## + nationalityNigeria
                                       1
                                             37.64 12027 1531.3
                                             37.56 12027 1531.3
## + clubHuddersfield
                                       1
## + `clubStoke+City`
                                       1
                                             35.20 12030 1531.4
## + clubArsenal
                                             34.88 12030 1531.4
                                       1
## + nationalityEstonia
                                             28.62 12036 1531.6
## + positionLM
                                             28.62 12036 1531.6
                                       1
## + `clubWest+Ham`
                                       1
                                             26.93 12038 1531.7
## + `nationalityThe Gambia`
                                             26.91 12038 1531.7
                                       1
## + positionCB
                                             22.59 12042 1531.9
## + nationalityCanada
                                             19.54 12045 1532.0
                                       1
## + nationalityIceland
                                             19.27 12046 1532.0
                                       1
## + nationalityBrazil
                                             18.00 12047 1532.0
## + nationalityBermuda
                                             17.45 12047 1532.1
## + `nationalityTrinidad and Tobago`
                                             17.23 12048 1532.1
                                       1
## + `clubWest+Brom`
                                       1
                                             16.91 12048 1532.1
## + positionGK
                                             16.03 12049 1532.1
## + clubWatford
                                             15.00 12050 1532.2
## + `nationalitySouth Korea`
                                       1
                                             14.90 12050 1532.2
## + nationalityFinland
                                             12.25 12052 1532.3
                                       1
## + nationalityVenezuela
                                       1
                                             11.83 12053 1532.3
## + clubTottenham
                                       1
                                             11.53 12053 1532.3
## + `clubBrighton+and+Hove`
                                       1
                                             10.61 12054 1532.3
```

```
## + nationalityColombia
                                              9.41 12055 1532.4
                                              9.04 12056 1532.4
## + nationalityIsrael
## + positionLB
                                              8.74 12056 1532.4
## + nationalityCuracao
                                              8.00 12057 1532.4
                                       1
## + positionRB
                                              6.67 12058 1532.5
## + nationalityPortugal
                                     1
                                              6.62 12058 1532.5
## + new signing
                                              6.25 12058 1532.5
                                     1
                                              5.97 12059 1532.5
## + clubEverton
## + nationalityItaly
                                      1
                                              4.84 12060 1532.5
## + nationalityRomania
                                      1
                                              4.22 12060 1532.6
## + `clubLeicester+City`
                                      1
                                              4.11 12061 1532.6
                                              4.05 12061 1532.6
## + nationalityUruguay
                                      1
## + `nationalityNew Zealand`
                                      1
                                              3.84 12061 1532.6
## + nationalityMorocco
                                              3.69 12061 1532.6
                                              3.64 12061 1532.6
## + nationalityEgypt
                                      1
## + `clubCrystal+Palace`
                                      1
                                              2.95 12062 1532.6
                                              2.80 12062 1532.6
## + `nationalityCongo DR`
                                      1
## + nationalitySweden
                                              2.73 12062 1532.6
                                     1
                                              2.72 12062 1532.6
## + nationalityArmenia
## + nationalityGreece
                                      1
                                              2.62 12062 1532.6
## + nationalityCameroon
                                     1
                                              2.59 12062 1532.6
## + nationalityGermany
                                              2.19 12062 1532.7
                                     1
## + nationalityJamaica
                                              2.07 12063 1532.7
## + positionCM
                                              2.00 12063 1532.7
                                      1
                                              1.78 12063 1532.7
## + nationalityDenmark
                                     1
## + nationalitySlovenia
                                     1
                                             1.77 12063 1532.7
## + nationalityTunisia
                                              1.43 12063 1532.7
                                     1
                                             1.33 12063 1532.7
## + clubSwansea
                                      1
                                             1.33 12063 1532.7
## + nationalityChile
                                     1
## + nationalityAustralia
                                            0.95 12064 1532.7
                                     1
## + nationalityPoland
                                       1
                                             0.88 12064 1532.7
                                         0.88 12064 1532.7
## + `nationalityNorthern Ireland`
                                       1
## + nationalityNetherlands
                                              0.82 12064 1532.7
                                              0.82 12064 1532.7
## + nationalityJapan
                                       1
## + nationalityIreland
                                       1
                                              0.68 12064 1532.7
                                             0.50 12064 1532.7
## + nationalityWales
                                      1
## + `clubManchester+United`
                                             0.42 12064 1532.7
## + nationalityBosnia
                                     1
                                             0.30 12064 1532.7
## + nationalityGhana
                                      1
                                              0.17 12065 1532.7
## + nationalityCroatia
                                             0.07 12065 1532.7
                                      1
## + nationalityAustria
                                              0.03 12065 1532.7
## + nationalityMali
                                              0.01 12065 1532.7
                                       1
                                              0.00 12065 1532.7
## + `nationalityUnited States`
                                       1
## - new_foreign
                                       1
                                            256.35 12321 1538.4
                                            347.94 12413 1541.8
## - nationalityFrance
                                       1
                                            351.48 12416 1541.9
## - positionSS
                                       1
## - nationalityBelgium
                                       1
                                            353.73 12418 1542.0
## - positionCF
                                            681.39 12746 1554.0
## - `clubManchester+City`
                                       1
                                            683.93 12749 1554.1
## - fpl_points
                                       1
                                           1067.46 13132 1567.7
                                           1274.05 13339 1574.9
## - big_club
                                      1
## - fpl_value
                                     1
                                           1995.42 14060 1599.1
## - page_views
                                     1
                                           2343.23 14408 1610.4
## - ns(age, 3)
                                           2573.38 14638 1613.7
```

```
##
## Step: AIC=1525.04
  market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
##
##
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea
##
                                       Df Sum of Sq
                                                      RSS
##
                                             162.16 11702 1520.7
## + positionDM
## + nationalityArgentina
                                             133.20 11731 1521.8
## + clubBournemouth
                                        1
                                             120.53 11744 1522.3
## + positionLW
                                        1
                                             115.49 11749 1522.5
                                             113.58 11751 1522.6
## + clubBurnley
                                        1
## + nationalityNorway
                                            100.83 11764 1523.1
                                        1
## + club_id
                                        1
                                             98.80 11766 1523.2
## + positionRW
                                              97.61 11767 1523.2
                                        1
## + nationalitySenegal
                                        1
                                              93.43 11771 1523.4
## + positionRM
                                              86.46 11778 1523.7
                                        1
## + clubSouthampton
                                              83.91 11781 1523.8
## + nationalityEngland
                                              81.35 11783 1523.9
                                        1
## + nationalitySwitzerland
                                        1
                                              67.94 11797 1524.4
## + nationalityEcuador
                                        1
                                              67.78 11797 1524.4
## + position_cat
                                              64.54 11800 1524.5
## + nationalityKenya
                                              61.40 11803 1524.7
                                        1
## + `nationalityCzech Republic`
                                              60.48 11804 1524.7
## + nationalityScotland
                                        1
                                              57.20 11807 1524.8
## + nationalityNigeria
                                        1
                                              53.54 11811 1525.0
## <none>
                                                    11865 1525.0
                                              51.06 11814 1525.1
## + region
                                        1
## + `nationalityCote d'Ivoire`
                                              46.21 11818 1525.2
                                        1
## + `clubNewcastle+United`
                                              44.69 11820 1525.3
                                        1
## + clubHuddersfield
                                        1
                                              44.21 11820 1525.3
## + clubTottenham
                                        1
                                              41.78 11823 1525.4
## + nationalitySerbia
                                              39.26 11825 1525.5
                                              36.60 11828 1525.6
## + clubLiverpool
                                        1
## + `clubStoke+City`
                                        1
                                              35.84 11829 1525.7
## + nationalitySpain
                                              35.24 11829 1525.7
                                        1
## + `nationalityThe Gambia`
                                              27.38 11837 1526.0
## + `clubWest+Ham`
                                              27.27 11837 1526.0
                                        1
## + positionLM
                                        1
                                              26.93 11838 1526.0
## + nationalityEstonia
                                              23.10 11842 1526.1
                                        1
## + positionCB
                                              22.93 11842 1526.2
## + nationalityCanada
                                              19.46 11845 1526.3
                                        1
## + nationalityIceland
                                        1
                                              19.18 11845 1526.3
## + `nationalityTrinidad and Tobago`
                                              18.24 11846 1526.3
                                        1
## + positionGK
                                              18.04 11847 1526.3
## + nationalityBermuda
                                              16.32 11848 1526.4
                                        1
## + `clubWest+Brom`
                                              15.21 11849 1526.5
## + clubWatford
                                              13.29 11851 1526.5
## + `nationalitySouth Korea`
                                        1
                                              12.29 11852 1526.6
## + nationalityFinland
                                        1
                                              12.04 11853 1526.6
                                              11.71 11853 1526.6
## + nationalityVenezuela
                                        1
## + positionLB
                                        1
                                              11.19 11853 1526.6
## + `clubManchester+United`
                                        1
                                              8.67 11856 1526.7
## + `clubBrighton+and+Hove`
                                              8.32 11856 1526.7
```

```
8.23 11856 1526.7
## + nationalityIsrael
## + nationalityCuracao
                                             8.18 11856 1526.7
## + clubEverton
                                             7.55 11857 1526.8
                                             7.03 11858 1526.8
## + nationalityColombia
                                     1
## + clubArsenal
                                     1
                                             6.38 11858 1526.8
                                             5.67 11859 1526.8
## + positionRB
                                    1
## + nationalityArmenia
                                             5.22 11859 1526.8
                                     1
                                             5.10 11860 1526.8
## + positionCM
## + nationalityBrazil
                                      1
                                             4.92 11860 1526.8
## + new_signing
                                     1
                                             4.87 11860 1526.8
## + `clubLeicester+City`
                                             4.68 11860 1526.9
## + nationalitySweden
                                             4.39 11860 1526.9
                                      1
## + nationalityUruguay
                                      1
                                             4.26 11860 1526.9
## + `nationalityNew Zealand`
                                             4.09 11860 1526.9
## + nationalityRomania
                                             4.00 11861 1526.9
                                     1
## + nationalityItaly
                                      1
                                             3.80 11861 1526.9
                                             3.65 11861 1526.9
## + nationalityCameroon
                                      1
## + nationalityMorocco
                                             3.52 11861 1526.9
## + `clubCrystal+Palace`
                                             3.51 11861 1526.9
                                     1
                                             2.94 11862 1526.9
## + nationalityChile
                                      1
## + nationalityPortugal
                                     1
                                             2.55 11862 1526.9
## + nationalityGreece
                                             2.37 11862 1527.0
                                    1
                                            2.33 11862 1527.0
## + `nationalityCongo DR`
## + nationalityJamaica
                                     1
                                             2.23 11862 1527.0
                                     1
                                             2.23 11862 1527.0
## + nationalityDenmark
## + nationalityGermany
                                     1
                                             1.81 11863 1527.0
## + nationalityPoland
                                             1.69 11863 1527.0
                                     1
                                             1.48 11863 1527.0
## + nationalitySlovenia
                                     1
## + nationalityTunisia
                                     1
                                             1.47 11863 1527.0
## + nationalityEgypt
                                     1
                                             1.43 11863 1527.0
                                     1
## + clubSwansea
                                             1.37 11863 1527.0
## + nationalityWales
                                     1
                                             1.36 11863 1527.0
## + nationalityAustralia
                                             1.20 11863 1527.0
                                             1.18 11863 1527.0
## + nationalityBosnia
                                     1
## + nationalityJapan
                                      1
                                             0.83 11864 1527.0
                                      1 0.71 11864 1527.0
1 0.67 11864 1527.0
## + `nationalityNorthern Ireland`
## + nationalityCroatia
                                      1
## + nationalityIreland
                                      1
                                           0.63 11864 1527.0
                                           0.25 11864 1527.0
## + nationalityGhana
                                      1
## + nationalityNetherlands
                                           0.13 11864 1527.0
                                      1
## + `nationalityUnited States`
                                             0.00 11865 1527.0
## + nationalityAustria
                                      1
                                             0.00 11865 1527.0
## + nationalityMali
                                             0.00 11865 1527.0
                                      1
## - clubChelsea
                                           200.10 12065 1530.7
                                      1
                                           209.90 12074 1531.1
## - new_foreign
                                           310.10 12175 1534.9
## - nationalityBelgium
                                     1
                                           323.82 12188 1535.4
## - nationalityFrance
                                      1
## - positionSS
                                     1
                                           337.88 12202 1536.0
## - positionCF
                                           667.99 12533 1548.2
                                           790.34 12655 1552.7
## - `clubManchester+City`
                                      1
                                     1
                                           957.12 12822 1558.7
## - big_club
                                     1
                                           994.38 12859 1560.1
## - fpl_points
## - fpl_value
                                     1
                                          2050.82 13915 1596.4
                                          2228.85 14094 1602.2
## - page_views
```

```
2594.76 14459 1610.0
## - ns(age, 3)
##
## Step: AIC=1520.71
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
##
       nationalityFrance + nationalityBelgium + new foreign + clubChelsea +
##
       positionDM
##
##
                                      Df Sum of Sq
                                                     RSS
                                                             AIC
                                             141.52 11561 1517.1
## + position_cat
## + nationalityArgentina
                                             132.40 11570 1517.5
                                             122.68 11580 1517.9
## + clubBurnley
                                        1
## + positionLW
                                        1
                                             103.79 11599 1518.6
## + nationalityNorway
                                        1
                                            103.55 11599 1518.6
## + clubBournemouth
                                             102.40 11600 1518.7
                                        1
## + club_id
                                        1
                                             90.15 11612 1519.2
                                              87.67 11615 1519.2
## + positionRW
                                        1
## + nationalitySenegal
                                              81.22 11621 1519.5
## + clubSouthampton
                                              80.98 11622 1519.5
                                        1
                                              75.94 11626 1519.7
## + positionRM
                                        1
## + nationalityEngland
                                        1
                                             70.70 11632 1519.9
## + nationalityEcuador
                                              65.09 11637 1520.2
                                              62.32 11640 1520.2
## + nationalityNigeria
                                        1
## + positionCB
                                              59.86 11643 1520.3
## + `nationalityCzech Republic`
                                              56.09 11646 1520.5
## <none>
                                                    11702 1520.7
## + `clubNewcastle+United`
                                              49.65 11653 1520.8
                                        1
## + nationalityScotland
                                              48.93 11654 1520.8
                                        1
## + nationalitySwitzerland
                                             41.28 11661 1521.1
                                        1
## + `nationalityCote d'Ivoire`
                                        1
                                              40.78 11662 1521.1
## + positionGK
                                        1
                                              39.15 11663 1521.2
## + clubTottenham
                                        1
                                              38.35 11664 1521.2
## + region
                                        1
                                              36.88 11666 1521.3
                                              36.85 11666 1521.3
## + clubLiverpool
                                        1
## + nationalitySpain
                                        1
                                              36.41 11666 1521.3
## + clubHuddersfield
                                              35.94 11666 1521.3
                                       1
## + nationalityKenya
                                       1
                                              35.62 11667 1521.3
## + `clubStoke+City`
                                        1
                                              33.23 11669 1521.4
## + `clubWest+Ham`
                                        1
                                              29.01 11674 1521.6
## + `nationalityThe Gambia`
                                              25.42 11677 1521.7
                                       1
## + positionLM
                                              23.23 11679 1521.8
## + nationalitySerbia
                                              23.09 11679 1521.8
                                        1
## + `nationalitySouth Korea`
                                              21.38 11681 1521.9
                                        1
## + nationalityEstonia
                                              20.18 11682 1521.9
                                        1
## + nationalityIceland
                                              19.66 11683 1521.9
## + `clubWest+Brom`
                                              19.14 11683 1522.0
                                        1
## + nationalityCanada
                                        1
                                              18.00 11684 1522.0
## + positionCM
                                              17.65 11685 1522.0
## + `nationalityTrinidad and Tobago`
                                        1
                                              17.57 11685 1522.0
## + nationalityBermuda
                                        1
                                              16.87 11686 1522.0
## + clubWatford
                                              16.15 11686 1522.1
                                        1
## + nationalityFinland
                                        1
                                              13.32 11689 1522.2
## + `clubBrighton+and+Hove`
                                        1
                                              12.73 11690 1522.2
## + `clubManchester+United`
                                        1
                                              11.96 11690 1522.2
```

```
## + nationalityVenezuela
                                            11.57 11691 1522.3
## + nationalityIsrael
                                            8.81 11694 1522.4
## + clubArsenal
                                            7.56 11695 1522.4
                                             6.95 11696 1522.4
## + nationalityCuracao
                                    1
                                    1
## + nationalitySweden
                                             6.63 11696 1522.5
                                    1
                                             6.30 11696 1522.5
## + new signing
## + nationalityColombia
                                             6.15 11696 1522.5
                                    1
                                            5.39 11697 1522.5
## + nationalityArmenia
## + nationalityCameroon
                                     1
                                             5.18 11697 1522.5
## + nationalityUruguay
                                     1
                                             5.07 11697 1522.5
## + `nationalityNew Zealand`
                                    1
                                             4.95 11698 1522.5
## + clubEverton
                                             4.85 11698 1522.5
                                      1
## + `clubCrystal+Palace`
                                     1
                                             4.72 11698 1522.5
                                             4.54 11698 1522.5
## + nationalityRomania
## + nationalityPortugal
                                             4.23 11698 1522.5
                                    1
## + nationalityEgypt
                                     1
                                             4.14 11698 1522.5
                                    1
                                             3.95 11698 1522.6
## + positionLB
## + nationalityMorocco
                                             3.92 11698 1522.6
## + nationalityPoland
                                             3.46 11699 1522.6
                                    1
## + nationalityJamaica
                                    1
                                             3.33 11699 1522.6
                                    1
## + nationalityDenmark
                                             3.25 11699 1522.6
## + nationalityWales
                                             3.06 11699 1522.6
                                    1
                                             3.05 11699 1522.6
## + nationalityChile
## + nationalityItaly
                                     1
                                             2.70 11700 1522.6
## + `nationalityCongo DR`
                                             2.60 11700 1522.6
                                    1
## + nationalityBosnia
                                    1
                                             2.09 11700 1522.6
## + nationalitySlovenia
                                             2.07 11700 1522.6
                                     1
                                            1.97 11700 1522.6
## + nationalityGreece
                                     1
## + nationalityGhana
                                            1.48 11701 1522.7
                                    1
## + nationalityJapan
                                     1
                                            1.13 11701 1522.7
                                     1
## + nationalityCroatia
                                             1.13 11701 1522.7
## + positionRB
                                     1
                                             1.10 11701 1522.7
## + nationalityGermany
                                             1.10 11701 1522.7
                                             1.09 11701 1522.7
## + nationalityTunisia
                                      1
## + `clubLeicester+City`
                                      1
                                             0.92 11702 1522.7
## + nationalityBrazil
                                            0.83 11702 1522.7
                                     1
## + nationalityIreland
                                     1
                                           0.83 11702 1522.7
## + clubSwansea
                                     1
                                           0.68 11702 1522.7
                                         0.58 11702 1522.7
## + nationalityNetherlands
                                     1
## + nationalityAustralia
                                           0.49 11702 1522.7
## + `nationalityNorthern Ireland`
                                            0.21 11702 1522.7
## + nationalityAustria
                                           0.20 11702 1522.7
                                      1
                                            0.15 11702 1522.7
## + `nationalityUnited States`
                                      1
                                             0.02 11702 1522.7
## + nationalityMali
                                      1
                                           162.16 11865 1525.0
## - positionDM
                                      1
                                           182.21 11885 1525.8
## - new_foreign
                                      1
## - clubChelsea
                                      1
                                           189.45 11892 1526.1
## - nationalityFrance
                                           244.11 11947 1528.2
                                      1
## - nationalityBelgium
                                      1
                                           321.27 12024 1531.2
## - positionSS
                                      1
                                           327.31 12030 1531.4
                                     1
                                           660.93 12363 1544.0
## - positionCF
                                 1
## - `clubManchester+City`
                                           746.35 12449 1547.2
## - fpl_points
                                    1
                                           923.01 12626 1553.6
## - big club
                                           925.65 12628 1553.7
```

```
2067.60 13770 1593.5
## - page_views
## - fpl_value
                                           2204.50 13907 1598.1
## - ns(age, 3)
                                           2491.27 14194 1603.5
##
## Step: AIC=1517.11
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
##
       positionDM + position_cat
##
##
                                      Df Sum of Sq
                                                     RSS
                                           121.46 11440 1514.3
## + nationalityArgentina
                                            114.13 11447 1514.5
## + clubBurnley
## + nationalityNorway
                                          106.06 11455 1514.9
## + club_id
                                           99.71 11461 1515.1
                                      1
## + clubBournemouth
                                       1
                                            94.15 11467 1515.3
## + nationalitySenegal
                                             83.15 11478 1515.8
                                       1
## + clubSouthampton
                                             78.48 11482 1516.0
## + positionRM
                                             71.02 11490 1516.3
                                       1
                                             65.32 11496 1516.5
## + nationalityEngland
                                       1
## + nationalityEcuador
                                       1
                                             59.37 11502 1516.8
## + positionCM
                                             52.99 11508 1517.0
                                             52.84 11508 1517.0
## + nationalityNigeria
                                       1
## + `nationalityCzech Republic`
                                             52.30 11509 1517.0
## <none>
                                                   11561 1517.1
## + nationalitySwitzerland
                                       1
                                             48.89 11512 1517.2
## + region
                                             40.26 11521 1517.5
                                       1
## + nationalityKenya
                                             40.01 11521 1517.5
                                       1
## + `clubNewcastle+United`
                                       1
                                             39.96 11521 1517.5
## + clubHuddersfield
                                      1
                                             37.28 11524 1517.6
## + clubTottenham
                                       1
                                             36.94 11524 1517.6
## + `clubStoke+City`
                                       1
                                             34.74 11526 1517.7
## + nationalitySpain
                                       1
                                             33.96 11527 1517.8
## + positionLW
                                             32.68 11528 1517.8
                                       1
## + nationalityScotland
                                       1
                                             31.87 11529 1517.8
## + `nationalityCote d'Ivoire`
                                             30.33 11531 1517.9
                                       1
## + `clubWest+Ham`
                                       1
                                             29.22 11532 1518.0
## + clubLiverpool
                                       1
                                             27.42 11534 1518.0
## + positionRW
                                             27.20 11534 1518.0
## + nationalitySerbia
                                             26.42 11534 1518.1
## + `nationalityTrinidad and Tobago`
                                             24.65 11536 1518.1
## + positionCB
                                             23.90 11537 1518.2
                                       1
## + nationalityBermuda
                                             19.57 11541 1518.3
                                       1
## + positionLB
                                             19.50 11541 1518.3
## + nationalityEstonia
                                             18.80 11542 1518.4
## + `nationalityThe Gambia`
                                             16.58 11544 1518.5
                                       1
## + positionLM
                                       1
                                             15.39 11546 1518.5
## + nationalityCanada
                                             15.17 11546 1518.5
                                       1
## + clubWatford
                                       1
                                             15.11 11546 1518.5
## + `nationalitySouth Korea`
                                       1
                                             13.95 11547 1518.6
## + nationalityIceland
                                             13.47 11548 1518.6
                                      1
## + `clubWest+Brom`
                                     1
                                            13.35 11548 1518.6
## + nationalityColombia
                                      1 13.20 11548 1518.6
## + `clubBrighton+and+Hove`
                                             12.73 11548 1518.6
                                      1
```

```
## + nationalityVenezuela
                                             12.68 11548 1518.6
                                             12.27 11549 1518.6
## + new_signing
## + nationalityIsrael
                                             11.52 11549 1518.7
                                             11.44 11550 1518.7
## + clubArsenal
                                       1
## + `clubManchester+United`
                                             11.17 11550 1518.7
## + nationalityMorocco
                                             10.00 11551 1518.7
                                       1
## + nationalityCuracao
                                              9.06 11552 1518.8
                                              7.29 11554 1518.8
## + nationalityArmenia
                                      1
## + nationalityFinland
                                       1
                                              7.06 11554 1518.8
## + positionRB
                                      1
                                              6.96 11554 1518.8
## + nationalityPortugal
                                              6.64 11554 1518.8
## + `clubCrystal+Palace`
                                              5.99 11555 1518.9
                                       1
## + nationalityUruguay
                                       1
                                              4.52 11556 1518.9
                                              4.35 11557 1518.9
## + nationalityAustralia
## + `nationalityNew Zealand`
                                              3.77 11557 1519.0
                                       1
## + `nationalityCongo DR`
                                       1
                                              3.59 11557 1519.0
                                              3.56 11557 1519.0
## + nationalityItaly
                                       1
## + nationalityWales
                                              3.34 11558 1519.0
                                              2.86 11558 1519.0
## + nationalityCameroon
                                       1
                                              2.85 11558 1519.0
## + nationalitySweden
                                       1
## + nationalityGreece
                                       1
                                              2.67 11558 1519.0
## + nationalityJamaica
                                              2.67 11558 1519.0
                                      1
                                              2.11 11559 1519.0
## + nationalityEgypt
## + nationalityTunisia
                                      1
                                              2.00 11559 1519.0
## + clubEverton
                                      1
                                              1.69 11559 1519.0
## + nationalityPoland
                                     1
                                              1.37 11560 1519.1
## + nationalityJapan
                                              1.18 11560 1519.1
                                       1
                                              0.96 11560 1519.1
## + nationalitySlovenia
                                       1
## + nationalityNetherlands
                                              0.95 11560 1519.1
                                      1
## + nationalityCroatia
                                              0.94 11560 1519.1
                                      1
## + nationalityChile
                                       1
                                              0.89 11560 1519.1
## + nationalityDenmark
                                       1
                                              0.78 11560 1519.1
## + nationalityRomania
                                              0.74 11560 1519.1
## + nationalityIreland
                                              0.70 11560 1519.1
                                       1
## + nationalityGhana
                                       1
                                              0.58 11560 1519.1
## + nationalityBrazil
                                              0.27 11561 1519.1
                                       1
## + nationalityGermany
                                              0.20 11561 1519.1
## + nationalityBosnia
                                              0.18 11561 1519.1
                                       1
## + nationalityMali
                                              0.14 11561 1519.1
## + `nationalityNorthern Ireland`
                                              0.07 11561 1519.1
## + positionGK
                                              0.07 11561 1519.1
## + nationalityAustria
                                              0.01 11561 1519.1
                                       1
                                              0.01 11561 1519.1
## + `nationalityUnited States`
                                       1
                                              0.00 11561 1519.1
## + `clubLeicester+City`
                                       1
                                              0.00 11561 1519.1
## + clubSwansea
                                       1
                                            122.19 11683 1520.0
## - new_foreign
                                       1
## - position_cat
                                       1
                                            141.52 11702 1520.7
## - clubChelsea
                                       1
                                            193.45 11754 1522.8
## - nationalityFrance
                                       1
                                            235.47 11796 1524.4
## - positionDM
                                       1
                                            239.14 11800 1524.5
                                            267.48 11828 1525.6
## - positionSS
                                      1
## - nationalityBelgium
                                     1
                                            307.98 11869 1527.2
## - positionCF
                                      1
                                            473.35 12034 1533.6
                                            675.32 12236 1541.2
## - fpl_points
```

```
## - big_club
                                            719.03 12280 1542.9
## - `clubManchester+City`
                                            723.10 12284 1543.0
                                       1
## - page_views
                                          1961.59 13522 1587.2
## - fpl_value
                                       1
                                           2182.94 13744 1594.7
## - ns(age, 3)
                                           2527.37 14088 1602.1
##
## Step: AIC=1514.26
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
##
       fpl_points + `clubManchester+City` + positionCF + positionSS +
##
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
       positionDM + position_cat + nationalityArgentina
##
##
                                      Df Sum of Sq
                                                     RSS
                                                            AIC
## + clubBurnley
                                            106.78 11333 1511.9
                                             97.18 11342 1512.3
## + nationalityNorway
                                       1
## + nationalitySenegal
                                       1
                                             88.24 11351 1512.7
## + clubBournemouth
                                       1
                                             86.23 11353 1512.8
## + clubSouthampton
                                             81.39 11358 1513.0
                                             81.22 11358 1513.0
## + club id
                                       1
                                             67.37 11372 1513.5
## + positionRM
                                       1
## + positionCM
                                       1
                                             63.00 11376 1513.7
## + nationalityEcuador
                                             56.31 11383 1514.0
## + nationalityNigeria
                                      1
                                             51.13 11388 1514.2
## + nationalitySwitzerland
                                             50.48 11389 1514.2
## <none>
                                                   11440 1514.3
## + `clubNewcastle+United`
                                      1
                                             48.82 11391 1514.3
## + `nationalityCzech Republic`
                                             47.86 11392 1514.3
                                       1
## + nationalityEngland
                                       1
                                             44.51 11395 1514.5
## + nationalitySpain
                                             43.98 11396 1514.5
                                       1
## + `clubStoke+City`
                                       1
                                             40.98 11398 1514.6
## + nationalityKenya
                                       1
                                             40.91 11399 1514.6
## + clubTottenham
                                       1
                                             35.48 11404 1514.8
## + nationalitySerbia
                                             29.68 11410 1515.1
                                             29.27 11410 1515.1
## + nationalityScotland
                                       1
## + clubHuddersfield
                                       1
                                             29.14 11410 1515.1
## + positionRW
                                             28.72 11411 1515.1
                                       1
## + positionLW
                                             27.96 11412 1515.1
## + `nationalityCote d'Ivoire`
                                             27.36 11412 1515.2
                                       1
## + `nationalityTrinidad and Tobago`
                                             22.87 11417 1515.3
## + clubWatford
                                             21.88 11418 1515.4
                                       1
## + positionCB
                                             21.02 11418 1515.4
## + clubLiverpool
                                             20.92 11419 1515.4
                                       1
## + `clubWest+Ham`
                                             20.55 11419 1515.4
                                       1
## + nationalityBermuda
                                             20.53 11419 1515.4
                                       1
## + region
                                             19.59 11420 1515.5
## + nationalityEstonia
                                             17.19 11422 1515.6
                                       1
## + `nationalityThe Gambia`
                                       1
                                             16.29 11423 1515.6
## + `clubWest+Brom`
                                      1
                                             16.12 11423 1515.6
## + nationalityCanada
                                       1
                                             14.81 11425 1515.7
## + new_signing
                                       1
                                             14.73 11425 1515.7
## + `clubBrighton+and+Hove`
                                             14.16 11425 1515.7
                                      1
## + positionLB
                                      1
                                             13.95 11426 1515.7
## + nationalityVenezuela
                                      1
                                            13.11 11426 1515.7
## + `nationalitySouth Korea`
                                      1
                                             13.04 11426 1515.7
```

```
## + nationalityIsrael
                                             12.84 11427 1515.7
## + nationalityIceland
                                             12.65 11427 1515.8
## + positionLM
                                             12.32 11427 1515.8
                                             11.33 11428 1515.8
## + nationalityColombia
                                       1
## + nationalityMorocco
                                       1
                                             10.63 11429 1515.8
## + clubArsenal
                                              9.39 11430 1515.9
                                       1
## + nationalityPortugal
                                              8.97 11430 1515.9
                                              8.64 11431 1515.9
## + positionRB
                                       1
## + nationalityCuracao
                                       1
                                              8.55 11431 1515.9
                                              8.40 11431 1515.9
## + nationalityFinland
                                       1
## + nationalityArmenia
                                              7.93 11432 1515.9
## + `clubManchester+United`
                                              5.91 11434 1516.0
                                       1
## + nationalityUruguay
                                       1
                                              5.21 11434 1516.0
                                              5.01 11434 1516.0
## + `clubCrystal+Palace`
## + nationalityWales
                                              4.77 11435 1516.1
                                       1
## + `nationalityCongo DR`
                                       1
                                              4.41 11435 1516.1
## + `nationalityNew Zealand`
                                              3.96 11436 1516.1
                                       1
## + nationalityCameroon
                                              3.56 11436 1516.1
## + nationalityJamaica
                                              3.37 11436 1516.1
                                       1
                                              3.24 11436 1516.1
## + nationalitySweden
                                       1
## + nationalityAustralia
                                       1
                                              3.22 11436 1516.1
## + nationalityItaly
                                              2.95 11436 1516.1
                                      1
                                              2.08 11437 1516.2
## + nationalityBrazil
## + nationalityGreece
                                      1
                                              2.03 11438 1516.2
                                              1.96 11438 1516.2
## + nationalityChile
                                     1
## + nationalityEgypt
                                      1
                                              1.89 11438 1516.2
## + nationalityIreland
                                              1.88 11438 1516.2
                                       1
                                              1.83 11438 1516.2
## + nationalityPoland
                                       1
## + nationalityTunisia
                                              1.66 11438 1516.2
                                      1
## + nationalityJapan
                                      1
                                              1.48 11438 1516.2
## + nationalityCroatia
                                      1
                                              1.21 11438 1516.2
## + clubEverton
                                       1
                                              1.20 11438 1516.2
## + nationalityDenmark
                                              1.18 11438 1516.2
## + nationalityRomania
                                              1.11 11438 1516.2
                                       1
## + nationalityGermany
                                       1
                                              1.08 11438 1516.2
## + nationalitySlovenia
                                              0.99 11438 1516.2
                                       1
## + positionGK
                                              0.97 11438 1516.2
## + nationalityGhana
                                      1
                                              0.40 11439 1516.2
                                              0.33 11439 1516.2
## + nationalityBosnia
                                              0.30 11439 1516.2
## + nationalityMali
## + nationalityNetherlands
                                              0.23 11439 1516.2
## + `clubLeicester+City`
                                       1
                                              0.07 11439 1516.2
## + clubSwansea
                                              0.05 11439 1516.2
                                       1
                                              0.04 11439 1516.2
## + nationalityAustria
                                       1
                                              0.02 11440 1516.3
## + `nationalityNorthern Ireland`
## + `nationalityUnited States`
                                              0.01 11440 1516.3
                                       1
                                            121.46 11561 1517.1
## - nationalityArgentina
                                       1
## - position_cat
                                            130.58 11570 1517.5
                                       1
## - new_foreign
                                       1
                                            141.34 11581 1517.9
## - clubChelsea
                                       1
                                            186.03 11626 1519.7
                                            234.41 11674 1521.6
## - positionDM
                                       1
                                            249.73 11689 1522.2
## - nationalityFrance
                                      1
## - positionSS
                                      1
                                            297.97 11738 1524.1
                                            329.54 11769 1525.3
## - nationalityBelgium
```

```
## - positionCF
                                           474.13 11914 1530.9
                                           680.77 12120 1538.8
## - big_club
## - `clubManchester+City`
                                           696.85 12136 1539.5
## - fpl_points
                                           717.94 12157 1540.3
                                      1
## - page_views
                                      1
                                          2028.32 13468 1587.3
                                      1
                                          2075.79 13515 1589.0
## - fpl value
                                          2605.74 14045 1602.7
## - ns(age, 3)
## Step: AIC=1511.94
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
       positionDM + position_cat + nationalityArgentina + clubBurnley
##
##
##
                                     Df Sum of Sq
                                                    RSS
## + clubBournemouth
                                           103.17 11230 1509.7
                                            101.17 11232 1509.8
## + nationalityNorway
## + nationalitySenegal
                                           80.87 11252 1510.7
                                           68.96 11264 1511.1
## + positionRM
                                      1
## + clubSouthampton
                                      1
                                            68.70 11264 1511.1
## + positionCM
                                     1 67.18 11266 1511.2
## + nationalityEcuador
                                            58.15 11274 1511.6
                                      1 52.87 11280 1511.8
## + nationalityNigeria
## + `nationalityCzech Republic`
                                            49.47 11283 1511.9
                                                   11333 1511.9
## <none>
## + nationalitySwitzerland
                                      1
                                            46.53 11286 1512.0
## + `clubNewcastle+United`
                                            42.23 11290 1512.2
                                      1
                                            41.39 11291 1512.3
## + club_id
                                      1
## + nationalityKenya
                                            38.56 11294 1512.4
                                      1
## + nationalitySpain
                                     1
                                            37.85 11295 1512.4
## + nationalityScotland
                                      1
                                            36.96 11296 1512.4
## + clubHuddersfield
                                      1
                                            36.86 11296 1512.4
## + positionLW
                                            34.32 11298 1512.5
## + clubTottenham
                                            33.83 11299 1512.6
                                      1
## + nationalityEngland
                                      1
                                            33.17 11300 1512.6
## + `clubStoke+City`
                                            32.19 11300 1512.6
                                      1
## + positionRW
                                            30.63 11302 1512.7
## + clubWatford
                                            29.42 11303 1512.8
                                      1
## + `nationalityCote d'Ivoire`
                                            28.85 11304 1512.8
## + nationalitySerbia
                                            26.95 11306 1512.8
## + `nationalityTrinidad and Tobago`
                                            23.84 11309 1513.0
## + `clubWest+Brom`
                                            23.24 11310 1513.0
                                       1
                                            21.55 11311 1513.1
## + clubLiverpool
## + positionCB
                                            20.26 11312 1513.1
## + nationalityBermuda
                                            18.57 11314 1513.2
## + `nationalityThe Gambia`
                                            17.63 11315 1513.2
                                      1
## + nationalityEstonia
                                      1
                                            17.44 11315 1513.2
## + new_signing
                                      1
                                            16.28 11316 1513.3
## + positionLB
                                      1
                                            15.19 11318 1513.3
## + `nationalitySouth Korea`
                                      1
                                            14.94 11318 1513.3
## + `clubWest+Ham`
                                     1
                                            14.10 11319 1513.4
## + region
                                     1
                                            11.26 11321 1513.5
## + nationalityIsrael
                                     1
                                            11.26 11321 1513.5
## + nationalityColombia
                                            11.08 11322 1513.5
```

```
## + nationalityVenezuela
                                             11.02 11322 1513.5
## + nationalityIreland
                                             10.88 11322 1513.5
## + `clubBrighton+and+Hove`
                                             10.37 11322 1513.5
                                             10.17 11322 1513.5
## + positionRB
                                       1
## + nationalityCuracao
                                              9.48 11323 1513.6
## + nationalityMorocco
                                              9.32 11323 1513.6
                                       1
## + clubArsenal
                                              9.09 11324 1513.6
                                      1
                                              8.64 11324 1513.6
## + nationalityArmenia
## + nationalityPortugal
                                       1
                                              8.15 11324 1513.6
## + nationalityFinland
                                       1
                                              7.95 11325 1513.6
## + `clubManchester+United`
                                       1
                                              6.65 11326 1513.7
## + nationalityWales
                                              6.22 11326 1513.7
                                       1
## + nationalityUruguay
                                       1
                                              4.45 11328 1513.8
                                              4.12 11329 1513.8
## + nationalityIceland
## + nationalityItaly
                                              3.96 11329 1513.8
                                       1
## + nationalityAustralia
                                       1
                                              3.93 11329 1513.8
                                              3.27 11329 1513.8
## + `nationalityCongo DR`
                                       1
## + `nationalityNew Zealand`
                                              3.17 11330 1513.8
## + nationalityCameroon
                                              2.84 11330 1513.8
                                       1
## + nationalitySweden
                                       1
                                              2.83 11330 1513.8
## + nationalityJamaica
                                       1
                                              2.70 11330 1513.8
## + nationalityGreece
                                              2.50 11330 1513.8
                                              2.35 11330 1513.8
## + nationalityCanada
                                      1
## + `clubCrystal+Palace`
                                              2.16 11330 1513.8
                                      1
## + nationalityEgypt
                                              2.12 11331 1513.9
                                      1
## + nationalityChile
                                      1
                                              2.08 11331 1513.9
## + nationalityTunisia
                                              1.99 11331 1513.9
                                       1
                                              1.91 11331 1513.9
## + nationalityBrazil
                                       1
## + positionGK
                                              1.34 11331 1513.9
                                      1
## + positionLM
                                      1
                                              1.30 11331 1513.9
## + nationalityPoland
                                      1
                                              1.21 11332 1513.9
## + clubSwansea
                                       1
                                              1.11 11332 1513.9
## + nationalityGhana
                                              1.03 11332 1513.9
                                              1.01 11332 1513.9
## + `clubLeicester+City`
                                       1
## + nationalityCroatia
                                       1
                                              1.01 11332 1513.9
## + nationalityNetherlands
                                              0.98 11332 1513.9
                                       1
## + nationalityRomania
                                              0.96 11332 1513.9
## + nationalitySlovenia
                                              0.87 11332 1513.9
                                      1
## + nationalityJapan
                                              0.84 11332 1513.9
## + nationalityDenmark
                                              0.71 11332 1513.9
                                       1
## + nationalityGermany
                                              0.61 11332 1513.9
## + nationalityBosnia
                                              0.32 11332 1513.9
                                       1
                                              0.27 11332 1513.9
## + clubEverton
                                       1
                                              0.14 11333 1513.9
## + nationalityMali
                                       1
                                              0.07 11333 1513.9
## + `nationalityNorthern Ireland`
## + `nationalityUnited States`
                                              0.01 11333 1513.9
                                       1
## + nationalityAustria
                                       1
                                              0.00 11333 1513.9
## - clubBurnley
                                       1
                                            106.78 11440 1514.3
## - nationalityArgentina
                                       1
                                            114.11 11447 1514.5
## - position_cat
                                       1
                                            122.97 11456 1514.9
                                            143.21 11476 1515.7
## - new_foreign
                                       1
## - clubChelsea
                                      1
                                            184.39 11517 1517.4
## - nationalityFrance
                                      1
                                            238.84 11572 1519.5
                                            241.52 11574 1519.6
## - positionDM
```

```
## - positionSS
                                           301.80 11634 1522.0
                                           337.41 11670 1523.4
## - nationalityBelgium
                                      1
                                           449.79 11782 1527.8
## - positionCF
## - big_club
                                           645.73 11978 1535.4
                                      1
## - `clubManchester+City`
                                      1
                                           701.77 12034 1537.6
## - fpl points
                                      1 764.22 12097 1540.0
                                     1 1986.57 13319 1584.2
## - page views
## - fpl_value
                                      1
                                          2014.56 13347 1585.2
## - ns(age, 3)
                                          2653.18 13986 1602.7
##
## Step: AIC=1509.73
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
##
      positionDM + position_cat + nationalityArgentina + clubBurnley +
##
       clubBournemouth
##
##
                                     Df Sum of Sq
                                                    RSS
                                                           AIC
## + nationalitySenegal
                                            75.38 11154 1508.6
                                            71.95 11158 1508.8
## + positionRM
## + positionCM
                                      1
                                            70.78 11159 1508.8
## + nationalityNorway
                                            70.33 11159 1508.8
                                     1 59.61 11170 1509.3
1 57.61 11172 1509.4
## + nationalityEcuador
## + nationalityNigeria
                                     1
                                            53.01 11176 1509.6
## + clubSouthampton
## + `nationalityCzech Republic`
                                     1 52.54 11177 1509.6
## <none>
                                                  11230 1509.7
## + clubHuddersfield
                                            45.79 11184 1509.9
                                      1
## + nationalitySwitzerland
                                     1
                                            43.31 11186 1510.0
## + clubWatford
                                     1
                                            39.74 11190 1510.1
                                     1
1
1
                                            39.47 11190 1510.1
## + nationalityScotland
## + nationalityKenya
                                            38.50 11191 1510.2
## + positionRW
                                            35.46 11194 1510.3
## + `clubNewcastle+United`
                                            35.04 11194 1510.3
                                     1
## + `clubWest+Brom`
                                     1
                                            33.24 11196 1510.4
## + clubTottenham
                                     1
                                            32.42 11197 1510.4
## + nationalitySpain
                                     1
                                            31.02 11198 1510.5
## + nationalityEngland
                                            25.81 11204 1510.7
                                      1
## + nationalitySerbia
                                      1
                                            25.41 11204 1510.7
## + positionLW
                                            24.96 11205 1510.7
## + `nationalityTrinidad and Tobago`
                                            24.58 11205 1510.7
## + clubLiverpool
                                            22.76 11207 1510.8
                                      1
## + `clubStoke+City`
                                            21.92 11208 1510.8
                                      1
## + `nationalityCote d'Ivoire`
                                            20.57 11209 1510.9
                                      1
## + `nationalityThe Gambia`
                                            19.59 11210 1510.9
                                            17.22 11212 1511.0
## + nationalityEstonia
                                      1
## + nationalityBermuda
                                      1
                                            17.05 11212 1511.0
## + positionCB
                                     1
                                            16.47 11213 1511.1
## + `nationalitySouth Korea`
                                     1
                                            16.14 11213 1511.1
## + positionLB
                                      1
                                            15.14 11214 1511.1
                                     1
                                            11.10 11218 1511.3
## + nationalityIreland
## + positionRB
                                     1
                                            10.47 11219 1511.3
## + nationalityCuracao
                                     1
                                            10.37 11219 1511.3
                                            10.27 11219 1511.3
## + nationalityIsrael
                                      1
```

```
10.09 11219 1511.3
## + nationalityColombia
                                              9.82 11220 1511.3
## + region
## + nationalityArmenia
                                              9.72 11220 1511.3
## + nationalityVenezuela
                                              8.91 11221 1511.4
                                       1
## + new signing
                                       1
                                              8.56 11221 1511.4
## + clubArsenal
                                              8.34 11221 1511.4
                                      1
## + `clubWest+Ham`
                                              8.02 11222 1511.4
                                      1
                                              7.76 11222 1511.4
## + nationalityMorocco
## + nationalityFinland
                                       1
                                              7.57 11222 1511.4
## + `clubManchester+United`
                                      1
                                              7.26 11222 1511.4
## + `clubBrighton+and+Hove`
                                      1
                                              7.15 11222 1511.4
                                              6.73 11223 1511.5
## + nationalityPortugal
                                       1
## + `nationalityCongo DR`
                                       1
                                              6.58 11223 1511.5
                                              5.01 11224 1511.5
## + nationalityItaly
                                      1
                                              5.01 11224 1511.5
## + nationalityBosnia
                                      1
## + nationalityIceland
                                      1
                                              4.96 11225 1511.5
                                              4.49 11225 1511.5
## + club_id
                                      1
## + clubSwansea
                                              4.29 11225 1511.6
                                              3.93 11226 1511.6
## + nationalityWales
                                      1
                                              3.61 11226 1511.6
## + nationalityUruguay
                                       1
## + nationalityPoland
                                       1
                                              3.60 11226 1511.6
## + `clubLeicester+City`
                                              3.31 11226 1511.6
                                              3.28 11226 1511.6
## + nationalityGreece
                                      1
## + nationalitySweden
                                              2.56 11227 1511.6
                                       1
## + `nationalityNew Zealand`
                                              2.42 11227 1511.6
                                      1
## + nationalityCanada
                                      1
                                              2.32 11227 1511.6
## + nationalityTunisia
                                              2.27 11227 1511.6
                                       1
                                              2.26 11227 1511.6
## + nationalityCameroon
                                       1
                                              2.17 11227 1511.7
## + nationalityEgypt
                                     1
## + nationalityGhana
                                     1
                                              2.06 11228 1511.7
                                      1
## + nationalityJamaica
                                              2.04 11228 1511.7
## + nationalityChile
                                      1
                                              1.95 11228 1511.7
## + positionLM
                                              1.86 11228 1511.7
                                              1.66 11228 1511.7
## + nationalityBrazil
                                       1
## + nationalityNetherlands
                                       1
                                              1.02 11228 1511.7
## + nationalityRomania
                                              0.93 11229 1511.7
                                       1
## + nationalityCroatia
                                              0.89 11229 1511.7
## + `nationalityNorthern Ireland`
                                             0.67 11229 1511.7
                                       1
                                              0.57 11229 1511.7
## + nationalitySlovenia
                                       1
                                              0.50 11229 1511.7
## + positionGK
                                       1
## + nationalityJapan
                                              0.37 11229 1511.7
## + nationalityGermany
                                              0.36 11229 1511.7
                                       1
## + `clubCrystal+Palace`
                                              0.28 11229 1511.7
                                       1
## + clubEverton
                                              0.26 11229 1511.7
                                       1
                                              0.23 11229 1511.7
## + nationalityDenmark
                                       1
                                              0.08 11229 1511.7
## + `nationalityUnited States`
                                       1
                                              0.08 11230 1511.7
## + nationalityAustria
                                       1
                                              0.06 11230 1511.7
## + nationalityMali
                                       1
## + nationalityAustralia
                                       1
                                              0.00 11230 1511.7
                                            103.17 11333 1511.9
## - clubBournemouth
                                       1
                                            105.16 11335 1512.0
## - nationalityArgentina
                                     1
## - position_cat
                                     1
                                            114.70 11344 1512.4
## - clubBurnley
                                      1
                                            123.72 11353 1512.8
                                            146.29 11376 1513.7
## - new foreign
                                       1
```

```
184.06 11414 1515.2
## - clubChelsea
## - positionDM
                                            217.36 11447 1516.5
                                       1
## - nationalityFrance
                                            246.49 11476 1517.7
## - positionSS
                                            283.13 11513 1519.2
                                      1
## - nationalityBelgium
                                       1
                                            324.52 11554 1520.8
## - positionCF
                                            427.37 11657 1524.9
                                      1
## - big club
                                      1 586.10 11816 1531.1
## - `clubManchester+City`
                                      1 710.90 11940 1536.0
## - fpl_points
                                       1
                                           831.85 12061 1540.6
                                       1 1937.82 13167 1581.0
## - fpl_value
## - page_views
                                       1 1959.32 13189 1581.7
                                           2662.79 13892 1601.6
## - ns(age, 3)
## Step: AIC=1508.64
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
##
       fpl_points + `clubManchester+City` + positionCF + positionSS +
##
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
       positionDM + position_cat + nationalityArgentina + clubBurnley +
##
##
       clubBournemouth + nationalitySenegal
##
##
                                      Df Sum of Sq RSS
                                                             AIC
## + nationalityNorway
                                            71.14 11083 1507.7
                                             69.90 11084 1507.7
## + positionRM
                                       1
## + positionCM
                                             61.22 11093 1508.1
## + clubSouthampton
                                             58.14 11096 1508.2
                                      1
## + nationalityEcuador
                                      1
                                             57.78 11096 1508.2
                                    1
## + nationalityNigeria
                                             55.99 11098 1508.3
## + `nationalityCzech Republic`
                                             52.25 11102 1508.5
## <none>
                                                   11154 1508.6
                                    1 45.49 11109 1508.8
1 39.89 11114 1509.0
## + nationalitySwitzerland
## + nationalityKenya
## + clubHuddersfield
                                      1
                                             39.60 11114 1509.0
## + clubWatford
                                      1
                                             35.93 11118 1509.2
## + nationalityScotland
                                             35.86 11118 1509.2
                                      1
                                             35.19 11119 1509.2
## + nationalitySpain
                                      1
                                      1
## + clubTottenham
                                             34.07 11120 1509.2
## + `clubNewcastle+United`
                                     1
                                             30.81 11123 1509.4
## + positionRW
                                      1
                                             30.14 11124 1509.4
                                             29.98 11124 1509.4
## + `clubWest+Brom`
                                      1
                                             28.58 11126 1509.5
## + clubLiverpool
                                       1
## + positionLW
                                             28.07 11126 1509.5
## + nationalitySerbia
                                             27.07 11127 1509.5
                                       1
                                          23.59 11131 1509.7
75.38 11230 1509.7
## + `nationalityTrinidad and Tobago`
                                       1
## - nationalitySenegal
                                       1
                                       1 20.16 11134 1509.8
1 19.01 11135 1509.8
1 18.95 11135 1509.8
## + `nationalityCote d'Ivoire`
## + `nationalityThe Gambia`
## + positionCB
## + nationalityBermuda
                                             18.56 11136 1509.9
                                      1
## + `clubStoke+City`
                                      1
                                             18.31 11136 1509.9
                                             18.29 11136 1509.9
## + nationalityEngland
                                      1
                                     1 18.21 11136 1509.9
1 16.88 11137 1509.9
## + positionLB
## + nationalityEstonia
                                     1 14.55 11140 1510.0
## + `nationalitySouth Korea`
## + nationalityIreland
                                             12.93 11141 1510.1
                                       1
```

```
11.68 11142 1510.2
## + nationalityIsrael
## + nationalityArmenia
                                            10.50 11144 1510.2
## + nationalityVenezuela
                                           9.92 11144 1510.2
                                             9.80 11144 1510.2
## + nationalityCuracao
                                     1
## + `clubBrighton+and+Hove`
                                      1
                                             9.72 11144 1510.2
## + nationalityColombia
                                             9.58 11145 1510.2
                                     1
## + positionRB
                                            8.99 11145 1510.3
                                     1
                                             8.46 11146 1510.3
## + nationalityMorocco
## + `clubManchester+United`
                                     1
                                             7.92 11146 1510.3
## + nationalityFinland
                                      1
                                             7.91 11146 1510.3
## + `nationalityCongo DR`
                                     1
                                             7.53 11147 1510.3
                                             6.96 11147 1510.3
## + nationalityPortugal
                                      1
## + clubArsenal
                                      1
                                             6.62 11148 1510.4
                                             5.99 11148 1510.4
## + new_signing
                                     1
                                             5.05 11149 1510.4
## + nationalityBosnia
                                     1
## + nationalityWales
                                     1
                                             4.68 11150 1510.4
                                     1
                                             4.54 11150 1510.5
## + nationalityIceland
## + nationalityItaly
                                             3.98 11150 1510.5
## + nationalityUruguay
                                             3.80 11150 1510.5
                                     1
                                             3.16 11151 1510.5
## + nationalityGreece
                                     1
                                    1
## + nationalityPoland
                                             3.14 11151 1510.5
## + club id
                                             3.08 11151 1510.5
                                     1
                                             3.01 11151 1510.5
## + `clubWest+Ham`
## + nationalitySweden
                                             2.82 11151 1510.5
## + clubSwansea
                                             2.82 11151 1510.5
## + `nationalityNew Zealand`
                                     1
                                             2.68 11152 1510.5
## + nationalityCameroon
                                             2.67 11152 1510.5
                                      1
                                             2.29 11152 1510.5
## + nationalityCanada
                                      1
## + nationalityJamaica
                                             2.29 11152 1510.5
                                     1
## + nationalityChile
                                     1
                                           2.08 11152 1510.5
## + nationalityTunisia
                                     1
                                             2.00 11152 1510.5
## + nationalityBrazil
                                     1
                                             1.95 11152 1510.6
## + nationalityEgypt
                                             1.89 11152 1510.6
## + `clubLeicester+City`
                                             1.82 11152 1510.6
                                      1
## + positionLM
                                      1
                                             1.61 11152 1510.6
## + nationalityGhana
                                     1
                                             1.47 11153 1510.6
## + nationalityRomania
                                     1
                                             1.13 11153 1510.6
## + nationalityCroatia
                                     1
                                             1.00 11153 1510.6
## + clubEverton
                                     1
                                             0.88 11153 1510.6
                                             0.85 11153 1510.6
## + region
                                      1
## + nationalityGermany
                                             0.77 11153 1510.6
## + nationalityJapan
                                      1
                                             0.61 11154 1510.6
## + nationalitySlovenia
                                             0.58 11154 1510.6
                                      1
## + `nationalityNorthern Ireland`
                                             0.47 11154 1510.6
                                      1
                                             0.46 11154 1510.6
## + nationalityNetherlands
                                             0.45 11154 1510.6
## + positionGK
                                      1
## + nationalityDenmark
                                      1
                                             0.40 11154 1510.6
## + nationalityMali
                                             0.17 11154 1510.6
## + `nationalityUnited States`
                                      1
                                             0.04 11154 1510.6
## + nationalityAustria
                                      1
                                             0.02 11154 1510.6
                                     1 0.02 11154 1510.6
## + nationalityAustralia
                                           0.01 11154 1510.6
## + `clubCrystal+Palace`
                                    1
                                     1 97.68 11252 1510.7
## - clubBournemouth
                                           109.99 11264 1511.2
## - nationalityArgentina
```

```
115.56 11270 1511.4
## - clubBurnley
                                            116.60 11271 1511.4
## - position_cat
                                       1
## - new foreign
                                            152.93 11307 1512.9
## - clubChelsea
                                            186.69 11341 1514.3
                                       1
## - positionDM
                                       1
                                            205.07 11359 1515.0
## - nationalityFrance
                                            258.16 11412 1517.2
                                       1
## - positionSS
                                            277.70 11432 1518.0
## - nationalityBelgium
                                            335.51 11490 1520.3
                                      1
## - positionCF
                                       1
                                            439.70 11594 1524.4
## - big_club
                                            596.95 11751 1530.6
                                       1
## - `clubManchester+City`
                                            719.59 11874 1535.4
                                            846.52 12001 1540.3
## - fpl_points
                                       1
                                           1912.43 13067 1579.4
## - fpl_value
                                       1
                                       1
                                           1965.04 13119 1581.3
## - page_views
## - ns(age, 3)
                                           2622.00 13776 1599.8
##
## Step: AIC=1507.69
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
##
       positionDM + position_cat + nationalityArgentina + clubBurnley +
##
       clubBournemouth + nationalitySenegal + nationalityNorway
##
                                      Df Sum of Sq RSS
## + positionRM
                                             68.43 11015 1506.8
## + positionCM
                                             64.15 11019 1507.0
## + clubSouthampton
                                             57.52 11026 1507.3
                                       1
## + nationalityEcuador
                                             57.32 11026 1507.3
                                       1
                                             55.03 11028 1507.4
## + nationalityNigeria
                                       1
## + `nationalityCzech Republic`
                                             52.26 11031 1507.5
                                      1
## <none>
                                                    11083 1507.7
## + nationalitySwitzerland
                                       1
                                             45.61 11037 1507.8
                                             39.09 11044 1508.1
## + nationalityKenya
## + clubWatford
                                             38.11 11045 1508.1
                                       1
                                             36.29 11047 1508.2
## + nationalityScotland
                                       1
## + clubHuddersfield
                                             36.02 11047 1508.2
                                       1
## + clubTottenham
                                      1
                                             31.83 11051 1508.4
## + clubLiverpool
                                      1
                                             31.66 11051 1508.4
## + `clubNewcastle+United`
                                      1
                                             30.85 11052 1508.4
                                             30.26 11053 1508.4
## + positionRW
                                       1
## + `clubWest+Brom`
                                             30.18 11053 1508.4
                                             29.42 11054 1508.5
## + positionLW
                                       1
## + nationalitySpain
                                             29.27 11054 1508.5
                                       1
## - clubBournemouth
                                             67.66 11151 1508.5
                                       1
## + nationalitySerbia
                                             27.22 11056 1508.6
                                             71.14 11154 1508.6
## - nationalityNorway
                                       1
## + `nationalityTrinidad and Tobago`
                                             23.45 11060 1508.7
## + nationalityEngland
                                             22.16 11061 1508.8
## + `nationalityCote d'Ivoire`
                                       1
                                             21.28 11062 1508.8
                                             76.19 11159 1508.8
## - nationalitySenegal
                                       1
## + positionCB
                                             19.67 11063 1508.9
                                       1
                                             19.34 11064 1508.9
## + positionLB
                                       1
## + nationalityBermuda
                                       1
                                             19.09 11064 1508.9
## + `nationalityThe Gambia`
                                             18.83 11064 1508.9
```

```
## + `clubStoke+City`
                                             16.46 11066 1509.0
## + nationalityEstonia
                                             16.19 11067 1509.0
## + `nationalitySouth Korea`
                                             14.49 11068 1509.1
## + nationalityIreland
                                             13.17 11070 1509.2
                                       1
## + nationalityIsrael
                                       1
                                             12.60 11070 1509.2
## + `clubBrighton+and+Hove`
                                      1 11.93 11071 1509.2
## + nationalityArmenia
                                      1 11.63 11071 1509.2
                                     1
## + `clubManchester+United`
                                             10.41 11073 1509.3
## + nationalityCuracao
                                       1
                                             9.58 11073 1509.3
                                              9.48 11074 1509.3
## + positionRB
                                      1
## + nationalityVenezuela
                                              9.31 11074 1509.3
                                              9.22 11074 1509.3
## + nationalityColombia
                                      1
                                     1
## + nationalityMorocco
                                              8.56 11074 1509.3
                                              8.42 11075 1509.3
## + nationalityFinland
## + nationalityPortugal
                                              6.91 11076 1509.4
                                     1
## + `nationalityCongo DR`
                                      1
                                              6.56 11076 1509.4
                                              6.30 11077 1509.4
## + clubArsenal
                                      1
## + new signing
                                              5.80 11077 1509.5
## + nationalityIceland
                                              5.12 11078 1509.5
                                      1
                                              4.79 11078 1509.5
## + nationalityWales
                                      1
## + nationalityBosnia
                                     1
                                              4.39 11079 1509.5
## + nationalityUruguay
                                              3.82 11079 1509.5
                                     1
                                              3.51 11080 1509.5
## + nationalityItaly
## + nationalityGreece
                                     1
                                              3.22 11080 1509.6
                                     1
                                              3.14 11080 1509.6
## + nationalitySweden
## + `clubWest+Ham`
                                              3.10 11080 1509.6
## + nationalityCameroon
                                     1
                                              2.77 11080 1509.6
                                              2.62 11080 1509.6
## + nationalityJamaica
                                      1
                                              2.59 11080 1509.6
## + `nationalityNew Zealand`
                                     1
## + clubSwansea
                                      1
                                              2.50 11080 1509.6
## + club_id
                                      1
                                              2.38 11081 1509.6
## + nationalityPoland
                                       1
                                              2.28 11081 1509.6
## + nationalityCanada
                                              2.24 11081 1509.6
                                              1.82 11081 1509.6
## + nationalityEgypt
                                       1
## + nationalityChile
                                       1
                                              1.82 11081 1509.6
## + clubEverton
                                              1.81 11081 1509.6
                                      1
## + nationalityTunisia
                                              1.80 11081 1509.6
## + `clubLeicester+City`
                                     1
                                              1.51 11082 1509.6
## + nationalityGhana
                                      1
                                              1.45 11082 1509.6
                                              1.39 11082 1509.6
## + positionLM
                                     1
## + nationalityRomania
                                              1.32 11082 1509.6
## + nationalityGermany
                                       1
                                              1.08 11082 1509.7
                                              1.07 11082 1509.7
## + region
                                       1
## + nationalityCroatia
                                              0.90 11082 1509.7
                                       1
## + nationalityBrazil
                                              0.90 11082 1509.7
                                              0.66 11082 1509.7
## + nationalitySlovenia
                                       1
## + nationalityJapan
                                       1
                                              0.63 11082 1509.7
## + nationalityNetherlands
                                              0.54 11082 1509.7
## + `nationalityNorthern Ireland`
                                       1
                                              0.50 11082 1509.7
                                              0.48 11082 1509.7
## + positionGK
                                       1
## + nationalityDenmark
                                              0.39 11083 1509.7
                                       1
                                              0.25 11083 1509.7
## + nationalityMali
                                       1
## + `nationalityUnited States`
                                      1
                                              0.02 11083 1509.7
                                              0.01 11083 1509.7
## + nationalityAustria
```

```
0.01 11083 1509.7
## + `clubCrystal+Palace`
## + nationalityAustralia
                                               0.01 11083 1509.7
                                       1
## - nationalityArgentina
                                       1
                                             103.86 11187 1510.0
                                             116.39 11199 1510.5
## - clubBurnley
                                       1
## - position_cat
                                       1
                                             119.90 11203 1510.6
## - positionSS
                                       1
                                             147.64 11231 1511.8
## - new foreign
                                             152.91 11236 1512.0
                                             187.69 11271 1513.4
## - clubChelsea
                                       1
## - positionDM
                                       1
                                             211.54 11295 1514.4
## - nationalityFrance
                                       1
                                             261.00 11344 1516.4
## - nationalityBelgium
                                       1
                                             329.38 11412 1519.2
                                             436.65 11520 1523.5
## - positionCF
                                       1
## - big_club
                                       1
                                             605.11 11688 1530.2
## - `clubManchester+City`
                                            720.43 11803 1534.7
                                       1
                                            884.74 11968 1541.0
## - fpl_points
                                       1
                                            1836.47 12920 1576.2
## - page_views
                                       1
                                            1944.92 13028 1580.1
## - fpl_value
                                       1
## - ns(age, 3)
                                            2643.16 13726 1600.1
##
## Step: AIC=1506.84
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
       positionDM + position cat + nationalityArgentina + clubBurnley +
##
       clubBournemouth + nationalitySenegal + nationalityNorway +
##
##
       positionRM
##
                                      Df Sum of Sq
                                                      RSS
## + clubSouthampton
                                              68.17 10946 1506.0
                                              58.51 10956 1506.4
## + nationalityEcuador
## + positionCM
                                        1
                                              55.64 10959 1506.5
## + `nationalityCzech Republic`
                                              53.16 10961 1506.6
                                                    11015 1506.8
## + nationalitySwitzerland
                                              45.00 10970 1507.0
                                       1
## + clubHuddersfield
                                        1
                                              42.50 10972 1507.1
## + clubWatford
                                       1
                                              39.98 10975 1507.2
## + nationalityKenya
                                       1
                                              39.65 10975 1507.2
## + positionRW
                                              38.07 10976 1507.2
                                       1
                                              36.67 10978 1507.3
## + nationalityNigeria
                                       1
                                              36.43 10978 1507.3
## + positionLW
                                       1
## + `clubNewcastle+United`
                                              36.13 10978 1507.3
## + clubLiverpool
                                       1
                                              33.37 10981 1507.5
## + `clubWest+Brom`
                                              30.23 10984 1507.6
                                       1
## + clubTottenham
                                              29.64 10985 1507.6
                                       1
                                              68.43 11083 1507.7
## - positionRM
                                              26.83 10988 1507.7
## + nationalityScotland
                                       1
                                              26.69 10988 1507.7
## + nationalitySpain
                                       1
## + nationalitySerbia
                                              26.34 10988 1507.7
                                       1
## - nationalityNorway
                                       1
                                              69.67 11084 1507.7
                                              70.30 11085 1507.8
## - clubBournemouth
                                        1
## + `nationalityTrinidad and Tobago`
                                              24.49 10990 1507.8
                                       1
## + `nationalityCote d'Ivoire`
                                       1
                                              22.26 10992 1507.9
## + positionLB
                                       1
                                              22.03 10993 1507.9
                                              74.15 11089 1507.9
## - nationalitySenegal
```

```
19.86 10995 1508.0
## + `nationalityThe Gambia`
## + nationalityEngland
                                             19.71 10995 1508.0
## + nationalityBermuda
                                             18.81 10996 1508.1
## + nationalityEstonia
                                             16.36 10998 1508.2
                                       1
## + `clubStoke+City`
                                       1
                                             15.72 10999 1508.2
## + positionCB
                                       1
                                             15.53 10999 1508.2
                                       1
1
1
## + `clubBrighton+and+Hove`
                                             15.27 10999 1508.2
## + `nationalitySouth Korea`
                                             15.09 11000 1508.2
## + nationalityIsrael
                                             12.16 11002 1508.3
                                             12.03 11003 1508.3
## + nationalityIreland
                                       1
## + nationalityArmenia
                                             10.71 11004 1508.4
                                             10.67 11004 1508.4
## + positionRB
                                       1
                                             10.00 11005 1508.4
## + nationalityCuracao
                                       1
                                     1 9.63 11005 1508.4
1 9.55 11005 1508.5
1 9.08 11006 1508.5
## + nationalityColombia
## + nationalityVenezuela
## + `clubManchester+United`
                                      1
                                              8.24 11006 1508.5
## + nationalityFinland
## + nationalityMorocco
                                              7.89 11007 1508.5
## + nationalityPortugal
                                              6.15 11008 1508.6
                                      1
                                              5.83 11009 1508.6
## + `nationalityCongo DR`
                                       1
## + new_signing
                                       1
                                              5.63 11009 1508.6
## + nationalityIceland
                                              5.50 11009 1508.6
                                      1
                                              4.42 11010 1508.7
## + nationalityWales
## + nationalityBosnia
                                              4.37 11010 1508.7
## + clubArsenal
                                      1
                                              3.95 11011 1508.7
## + nationalityItaly
                                      1
                                              3.86 11011 1508.7
## + nationalityUruguay
                                              3.84 11011 1508.7
                                      1
                                              3.18 11011 1508.7
## + nationalityGreece
                                       1
                                              3.11 11012 1508.7
## + clubSwansea
                                      1
## + nationalitySweden
                                      1
                                              3.00 11012 1508.7
                                      1
## + nationalityPoland
                                              2.72 11012 1508.7
                                      1
## + `clubWest+Ham`
                                              2.69 11012 1508.7
## + `nationalityNew Zealand`
                                              2.60 11012 1508.7
## + nationalityCameroon
                                              2.51 11012 1508.7
                                      1
                                              2.51 11012 1508.7
## + nationalityJamaica
                                       1
## + nationalityCanada
                                       1
                                              2.31 11012 1508.8
## + clubEverton
                                      1
                                              2.20 11012 1508.8
## + nationalityEgypt
                                      1
                                              1.95 11013 1508.8
## + nationalityTunisia
                                       1
                                              1.91 11013 1508.8
                                              1.81 11013 1508.8
## + nationalityGhana
                                       1
## + nationalityChile
                                              1.79 11013 1508.8
## + positionLM
                                       1
                                              1.75 11013 1508.8
## + `clubLeicester+City`
                                              1.75 11013 1508.8
                                       1
                                              1.50 11013 1508.8
## + club_id
                                       1
## + nationalityRomania
                                              1.21 11013 1508.8
                                              0.96 11014 1508.8
## + region
                                       1
## + nationalityNetherlands
                                              0.93 11014 1508.8
                                       1
## + nationalityCroatia
                                              0.89 11014 1508.8
                                       1
## + nationalityJapan
                                       1
                                              0.65 11014 1508.8
## + nationalityBrazil
                                       1
                                              0.64 11014 1508.8
                                              0.60 11014 1508.8
## + positionGK
                                       1
## + `nationalityNorthern Ireland`
                                              0.59 11014 1508.8
                                       1
## + nationalityGermany
                                       1
                                              0.58 11014 1508.8
## + nationalitySlovenia
                                              0.57 11014 1508.8
```

```
0.25 11014 1508.8
## + nationalityDenmark
## + nationalityMali
                                              0.13 11014 1508.8
## + nationalityAustralia
                                              0.05 11014 1508.8
## + `nationalityUnited States`
                                              0.05 11014 1508.8
                                       1
## + nationalityAustria
                                       1
                                              0.03 11015 1508.8
## + `clubCrystal+Palace`
                                              0.01 11015 1508.8
                                       1
## - nationalityArgentina
                                       1
                                          100.30 11115 1509.0
                                            115.38 11130 1509.6
## - position cat
                                       1
## - clubBurnley
                                       1
                                            118.38 11133 1509.8
                                            141.03 11156 1510.7
## - new_foreign
                                       1
## - positionSS
                                            153.55 11168 1511.2
                                            198.75 11213 1513.1
## - positionDM
                                       1
## - clubChelsea
                                       1
                                            205.38 11220 1513.3
                                            275.23 11290 1516.2
## - nationalityFrance
                                       1
                                            321.58 11336 1518.1
## - nationalityBelgium
                                       1
## - positionCF
                                       1
                                            458.53 11473 1523.6
                                            600.96 11616 1529.3
## - big_club
                                       1
## - `clubManchester+City`
                                            717.70 11732 1533.9
                                            846.58 11861 1538.9
## - fpl_points
                                       1
## - page views
                                       1
                                           1850.76 12865 1576.3
## - fpl_value
                                       1
                                           1960.42 12975 1580.2
## - ns(age, 3)
                                           2680.70 13695 1601.0
##
## Step: AIC=1505.99
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
##
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
       positionDM + position_cat + nationalityArgentina + clubBurnley +
##
       clubBournemouth + nationalitySenegal + nationalityNorway +
##
       positionRM + clubSouthampton
##
##
                                      Df Sum of Sq
                                                      RSS
                                                             AIC
## + nationalityEcuador
                                             57.74 10889 1505.6
## + positionCM
                                              54.06 10892 1505.7
                                       1
## + `nationalityCzech Republic`
                                       1
                                             52.20 10894 1505.8
## + nationalitySwitzerland
                                             49.53 10897 1505.9
## <none>
                                                    10946 1506.0
## + `clubNewcastle+United`
                                             43.45 10903 1506.2
                                       1
## + nationalityKenya
                                       1
                                             40.63 10906 1506.3
                                             56.43 11003 1506.3
## - clubBournemouth
                                       1
## + positionRW
                                             37.50 10909 1506.4
## + clubHuddersfield
                                       1
                                             34.44 10912 1506.5
                                             33.12 10913 1506.6
## + positionLW
                                       1
                                             32.89 10914 1506.6
## + clubLiverpool
                                       1
                                             31.49 10915 1506.7
## + clubWatford
                                             30.88 10916 1506.7
## + nationalityNigeria
                                       1
                                             30.76 10916 1506.7
## + clubTottenham
                                       1
                                             28.33 10918 1506.8
## + nationalitySerbia
## - clubSouthampton
                                       1
                                              68.17 11015 1506.8
                                             27.05 10919 1506.8
## + nationalitySpain
                                       1
                                             68.88 11015 1506.9
## - nationalityNorway
                                       1
                                             23.33 10923 1507.0
## + `nationalityTrinidad and Tobago`
## + `clubWest+Brom`
                                       1
                                             22.34 10924 1507.0
## + `clubStoke+City`
                                             22.33 10924 1507.0
```

```
22.02 10924 1507.1
## + positionLB
## + `nationalityCote d'Ivoire`
                                             21.59 10925 1507.1
## + nationalityScotland
                                             20.30 10926 1507.1
                                             20.22 10926 1507.1
## + nationalityEngland
                                       1
## + nationalityBermuda
                                       1
                                             19.84 10927 1507.2
                                         19.36 10927 1507.2
## + `clubBrighton+and+Hove`
                                       1
## + `nationalityThe Gambia`
                                      1 18.23 10928 1507.2
                                             17.21 10929 1507.3
## + nationalityEstonia
                                       1
## - positionRM
                                       1
                                             79.08 11026 1507.3
                                             79.53 11026 1507.3
## - nationalitySenegal
                                       1
## + positionCB
                                             14.11 10932 1507.4
## + `nationalitySouth Korea`
                                             13.65 10933 1507.4
                                       1
## + nationalityIsrael
                                             12.77 10934 1507.5
                                       1
                                         11.23 10935 1507.5
## + nationalityIreland
                                       1
                                      1 11.20 10935 1507.5
1 10.33 10936 1507.5
## + nationalityVenezuela
## + nationalityColombia
                                           9.89 10936 1507.6
## + nationalityArmenia
                                      1
## + nationalityCuracao
                                              9.13 10937 1507.6
                                              8.79 10938 1507.6
## + positionRB
                                      1
## + `clubManchester+United`
                                      1
                                              8.59 10938 1507.6
## + nationalityFinland
                                      1
                                              8.45 10938 1507.6
## + nationalityItaly
                                              7.36 10939 1507.7
                                      1
## + `nationalityCongo DR`
                                              7.19 10939 1507.7
## + nationalityWales
                                              6.21 10940 1507.7
## + `clubWest+Ham`
                                     1
                                              6.02 10940 1507.7
## + new_signing
                                     1
                                              5.47 10941 1507.8
## + nationalityIceland
                                              4.60 10942 1507.8
                                       1
## + nationalityUruguay
                                              4.34 10942 1507.8
                                       1
## + clubArsenal
                                              4.16 10942 1507.8
                                      1
## + nationalityBosnia
                                              4.03 10942 1507.8
                                      1
## + positionLM
                                      1
                                              3.64 10943 1507.8
## + nationalitySweden
                                       1
                                              3.55 10943 1507.8
## + `nationalityNew Zealand`
                                              3.26 10943 1507.8
## + nationalityCameroon
                                              3.05 10943 1507.9
                                       1
## + nationalityMorocco
                                       1
                                              3.02 10943 1507.9
## + nationalityJamaica
                                              2.90 10944 1507.9
                                       1
## + nationalityGreece
                                              2.75 10944 1507.9
## + nationalityCanada
                                      1
                                              2.34 10944 1507.9
## + nationalityChile
                                       1
                                              1.79 10945 1507.9
                                              1.69 10945 1507.9
## + nationalityTunisia
## + nationalityNetherlands
                                              1.68 10945 1507.9
## + region
                                              1.68 10945 1507.9
                                       1
                                              1.43 10945 1507.9
## + `nationalityNorthern Ireland`
                                       1
## + nationalityEgypt
                                              1.41 10945 1507.9
                                              1.33 10945 1507.9
## + nationalityRomania
                                              1.32 10945 1507.9
## + nationalityPortugal
                                       1
## + nationalityGermany
                                       1
                                              1.00 10945 1508.0
                                              0.95 10946 1508.0
## + nationalitySlovenia
## + nationalityCroatia
                                       1
                                              0.93 10946 1508.0
## + nationalityGhana
                                      1
                                              0.81 10946 1508.0
## + clubSwansea
                                     1
                                              0.79 10946 1508.0
## + nationalityBrazil
                                     1
                                              0.67 10946 1508.0
                                      1
## + nationalityPoland
                                              0.66 10946 1508.0
                                              0.45 10946 1508.0
## + club id
```

```
0.43 10946 1508.0
## + positionGK
## + `clubCrystal+Palace`
                                              0.43 10946 1508.0
                                              0.26 10946 1508.0
## + clubEverton
                                              0.24 10946 1508.0
## + nationalityMali
                                      1
## + `clubLeicester+City`
                                      1
                                              0.21 10946 1508.0
## + nationalityJapan
                                             0.09 10946 1508.0
                                      1
## + nationalityAustralia
                                            0.03 10946 1508.0
## + nationalityDenmark
                                            0.02 10946 1508.0
                                      1
                                            0.00 10946 1508.0
## + `nationalityUnited States`
                                      1
                                      1
                                            0.00 10946 1508.0
## + nationalityAustria
## - clubBurnley
                                      1
                                         103.25 11050 1508.3
                                           103.77 11050 1508.3
## - nationalityArgentina
                                       1
## - position_cat
                                       1
                                           113.96 11060 1508.8
                                           134.75 11081 1509.6
## - new_foreign
                                      1
## - positionSS
                                      1
                                           148.70 11095 1510.2
## - positionDM
                                      1
                                           195.06 11142 1512.1
## - clubChelsea
                                           207.10 11154 1512.6
                                      1
## - nationalityFrance
                                           275.58 11222 1515.4
## - nationalityBelgium
                                           330.74 11277 1517.7
                                      1
## - positionCF
                                       1
                                           466.34 11413 1523.2
## - big_club
                                       1
                                           650.65 11597 1530.5
## - `clubManchester+City`
                                          713.07 11660 1533.0
                                          781.19 11728 1535.7
## - fpl_points
                                      1
                                      1
                                           1872.24 12819 1576.6
## - page_views
                                           1973.12 12920 1580.2
## - fpl_value
                                      1
## - ns(age, 3)
                                           2606.28 13553 1598.2
##
## Step: AIC=1505.56
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
##
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
##
       positionDM + position_cat + nationalityArgentina + clubBurnley +
       clubBournemouth + nationalitySenegal + nationalityNorway +
##
##
       positionRM + clubSouthampton + nationalityEcuador
##
                                      Df Sum of Sq
##
                                                    RSS
                                                            AIC
## + `nationalityCzech Republic`
                                             53.10 10836 1505.3
## + positionCM
                                             49.37 10839 1505.5
                                       1
## + nationalitySwitzerland
                                             48.96 10840 1505.5
## <none>
                                                   10889 1505.6
## + `clubNewcastle+United`
                                             42.46 10846 1505.8
## + positionRW
                                             41.53 10847 1505.8
                                       1
## + nationalityKenya
                                             40.11 10849 1505.9
                                      1
## - clubBournemouth
                                            57.69 10946 1506.0
                                      1
                                             37.07 10852 1506.0
## + clubLiverpool
                                      1
                                            57.74 10946 1506.0
## - nationalityEcuador
                                      1
                                             36.23 10852 1506.0
## + clubHuddersfield
                                      1
## + clubWatford
                                     1
                                             32.67 10856 1506.2
## + nationalityNigeria
                                      1
                                             30.69 10858 1506.3
                                             28.02 10861 1506.4
## + nationalitySerbia
                                      1
                                     1
## + clubTottenham
                                             27.94 10861 1506.4
                                     1
                                            67.40 10956 1506.4
## - clubSouthampton
## - nationalityNorway
                                     1
                                            68.42 10957 1506.4
                                             25.37 10863 1506.5
## + positionLW
```

```
## + nationalitySpain
                                             24.96 10864 1506.5
                                              23.78 10865 1506.5
## + nationalityEngland
                                             23.56 10865 1506.6
## + `nationalityTrinidad and Tobago`
## + `clubWest+Brom`
                                             23.55 10865 1506.6
## + positionLB
                                             23.47 10865 1506.6
## + `nationalityCote d'Ivoire`
                                             22.28 10866 1506.6
## + `clubStoke+City`
                                             21.40 10867 1506.7
                                             21.39 10867 1506.7
## + nationalityScotland
                                       1
## + nationalityBermuda
                                       1
                                             19.69 10869 1506.7
## + `nationalityThe Gambia`
                                       1
                                             18.46 10870 1506.8
## + nationalityEstonia
                                             18.02 10871 1506.8
                                             17.96 10871 1506.8
## + `clubBrighton+and+Hove`
                                       1
## - nationalitySenegal
                                       1
                                             77.60 10966 1506.8
## + `clubManchester+United`
                                             15.81 10873 1506.9
                                             80.28 10969 1506.9
## - positionRM
                                       1
## + `nationalitySouth Korea`
                                       1
                                             14.46 10874 1506.9
                                             12.46 10876 1507.0
## + positionCB
                                       1
## + nationalityIsrael
                                             12.23 10876 1507.0
## + nationalityVenezuela
                                             11.12 10878 1507.1
                                       1
## + nationalityColombia
                                       1
                                             10.85 10878 1507.1
## + nationalityIreland
                                       1
                                             10.56 10878 1507.1
## + nationalityCuracao
                                              9.30 10879 1507.2
## + nationalityArmenia
                                              9.14 10880 1507.2
                                      1
## + nationalityFinland
                                       1
                                              8.26 10880 1507.2
                                              7.66 10881 1507.2
## + nationalityItaly
                                      1
## + `nationalityCongo DR`
                                      1
                                              6.99 10882 1507.3
## + clubArsenal
                                              5.88 10883 1507.3
                                       1
                                              5.53 10883 1507.3
## + nationalityWales
                                       1
## + `clubWest+Ham`
                                              5.48 10883 1507.3
                                      1
## + nationalityIceland
                                              4.89 10884 1507.3
                                      1
## + new_signing
                                       1
                                              4.72 10884 1507.4
## + positionRB
                                       1
                                              4.64 10884 1507.4
## + nationalityUruguay
                                              4.16 10884 1507.4
                                              4.11 10885 1507.4
## + positionLM
                                       1
## + nationalityBosnia
                                       1
                                              3.88 10885 1507.4
                                              3.47 10885 1507.4
## + region
                                       1
## + nationalitySweden
                                              3.35 10885 1507.4
## + `nationalityNew Zealand`
                                              3.11 10886 1507.4
                                       1
## + nationalityGreece
                                              2.88 10886 1507.4
## + nationalityMorocco
                                              2.78 10886 1507.4
                                       1
## + nationalityCameroon
                                              2.77 10886 1507.4
## + nationalityJamaica
                                              2.69 10886 1507.4
                                       1
## + nationalityCanada
                                       1
                                              2.43 10886 1507.5
## + nationalityNetherlands
                                              2.11 10887 1507.5
                                       1
## + nationalityTunisia
                                              1.83 10887 1507.5
                                              1.66 10887 1507.5
## + `nationalityNorthern Ireland`
                                       1
## + nationalityEgypt
                                       1
                                              1.58 10887 1507.5
## + nationalityChile
                                              1.57 10887 1507.5
## + nationalityRomania
                                       1
                                              1.24 10887 1507.5
## + nationalityPortugal
                                       1
                                              1.17 10888 1507.5
                                              1.10 10888 1507.5
## + club_id
                                       1
## + nationalitySlovenia
                                       1
                                              0.99 10888 1507.5
## + nationalityGhana
                                      1
                                              0.85 10888 1507.5
## + nationalityCroatia
                                              0.77 10888 1507.5
```

```
0.76 10888 1507.5
## + nationalityGermany
## + nationalityPoland
                                              0.73 10888 1507.5
## + positionGK
                                              0.56 10888 1507.5
## + nationalityBrazil
                                              0.54 10888 1507.5
                                      1
## + clubEverton
                                      1
                                              0.32 10888 1507.5
## + `clubLeicester+City`
                                              0.31 10888 1507.5
                                      1
## + `clubCrystal+Palace`
                                              0.30 10888 1507.5
## + nationalityMali
                                              0.17 10888 1507.5
                                      1
## + nationalityJapan
                                      1
                                              0.11 10889 1507.5
                                              0.03 10889 1507.5
## + nationalityAustralia
                                      1
## + clubSwansea
                                      1
                                              0.02 10889 1507.6
                                              0.01 10889 1507.6
## + nationalityAustria
                                       1
## + nationalityDenmark
                                       1
                                             0.01 10889 1507.6
## + `nationalityUnited States`
                                            0.00 10889 1507.6
                                       1
## - nationalityArgentina
                                       1 100.72 10989 1507.8
## - clubBurnley
                                       1
                                           105.34 10994 1508.0
                                            108.86 10998 1508.1
## - position_cat
                                       1
## - new foreign
                                            132.95 11022 1509.1
## - positionSS
                                            151.26 11040 1509.9
                                       1
## - positionDM
                                       1
                                            190.60 11079 1511.5
## - clubChelsea
                                       1
                                            201.24 11090 1512.0
## - nationalityFrance
                                            271.12 11160 1514.9
                                            324.03 11213 1517.0
## - nationalityBelgium
                                      1
## - positionCF
                                      1
                                            478.67 11367 1523.3
                                            667.21 11556 1530.9
## - big club
                                       1
## - `clubManchester+City`
                                            698.74 11587 1532.2
## - fpl_points
                                            776.68 11665 1535.2
                                       1
                                          1865.39 12754 1576.3
## - page_views
                                          1980.38 12869 1580.4
                                      1
## - fpl_value
                                           2592.27 13481 1597.8
## - ns(age, 3)
##
## Step: AIC=1505.31
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
##
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
       positionDM + position_cat + nationalityArgentina + clubBurnley +
##
##
       clubBournemouth + nationalitySenegal + nationalityNorway +
##
       positionRM + clubSouthampton + nationalityEcuador + `nationalityCzech Republic`
##
##
                                      Df Sum of Sq
                                                    RSS
                                                            AIC
## + nationalitySwitzerland
                                             47.95 10788 1505.3
## <none>
                                                   10836 1505.3
                                             45.67 10790 1505.4
## + positionCM
                                             43.83 10792 1505.4
## + positionRW
## + `clubNewcastle+United`
                                             41.31 10794 1505.5
## - `nationalityCzech Republic`
                                             53.10 10889 1505.6
                                       1
## + clubLiverpool
                                       1
                                             40.96 10795 1505.6
## + nationalityKenya
                                             39.52 10796 1505.6
                                       1
## + clubHuddersfield
                                       1
                                             38.09 10798 1505.7
                                             58.63 10894 1505.8
## - nationalityEcuador
                                       1
## - clubBournemouth
                                     1
                                             60.08 10896 1505.8
## + clubWatford
                                     1
                                             33.48 10802 1505.9
## + nationalityNigeria
                                      1
                                             30.80 10805 1506.0
## + `clubBrighton+and+Hove`
                                             28.55 10807 1506.1
```

```
## + nationalityEngland
                                              28.23 10807 1506.1
## - clubSouthampton
                                              66.43 10902 1506.1
## + nationalitySerbia
                                              27.80 10808 1506.1
## - nationalityNorway
                                              68.42 10904 1506.2
                                       1
## + clubTottenham
                                              24.89 10811 1506.2
## + positionLB
                                             24.84 10811 1506.2
## + `clubWest+Brom`
                                              24.65 10811 1506.3
## + `nationalityTrinidad and Tobago`
                                              23.72 10812 1506.3
                                       1
## + nationalitySpain
                                        1
                                              23.57 10812 1506.3
## + `nationalityCote d'Ivoire`
                                              23.33 10812 1506.3
## + nationalityScotland
                                              22.18 10813 1506.4
## + `clubStoke+City`
                                              20.14 10815 1506.5
                                        1
## + nationalityBermuda
                                       1
                                              19.74 10816 1506.5
                                             18.97 10817 1506.5
## + `nationalityThe Gambia`
## + nationalityEstonia
                                             18.60 10817 1506.5
                                       1
## + positionLW
                                       1
                                              17.48 10818 1506.6
                                             77.24 10913 1506.6
## - nationalitySenegal
                                       1
## + `nationalitySouth Korea`
                                             14.76 10821 1506.7
## + `clubManchester+United`
                                             13.74 10822 1506.7
                                       1
                                             81.17 10917 1506.7
## - positionRM
                                       1
## + nationalityIsrael
                                       1
                                             12.30 10823 1506.8
## + nationalityVenezuela
                                             11.13 10824 1506.8
## + nationalityColombia
                                             11.02 10825 1506.8
                                       1
## + positionCB
                                             10.30 10825 1506.9
                                       1
## + nationalityIreland
                                             9.80 10826 1506.9
                                       1
## + nationalityCuracao
                                       1
                                               9.33 10826 1506.9
## + nationalityArmenia
                                               8.93 10827 1506.9
                                       1
## + nationalityFinland
                                       1
                                               8.07 10828 1507.0
## + nationalityItaly
                                               7.74 10828 1507.0
                                       1
## + `nationalityCongo DR`
                                               6.78 10829 1507.0
                                       1
## + positionRB
                                       1
                                               5.44 10830 1507.1
## + `clubWest+Ham`
                                       1
                                               5.17 10830 1507.1
## + nationalityIceland
                                               5.01 10831 1507.1
                                               4.98 10831 1507.1
## + nationalityWales
                                       1
## + positionLM
                                       1
                                               4.66 10831 1507.1
## + nationalityUruguay
                                               3.96 10832 1507.1
                                       1
## + nationalityBosnia
                                       1
                                               3.87 10832 1507.1
## + new_signing
                                               3.86 10832 1507.1
                                       1
## + region
                                       1
                                               3.75 10832 1507.2
                                               3.29 10832 1507.2
## + nationalitySweden
                                       1
## + nationalityGreece
                                               3.16 10832 1507.2
## + `nationalityNew Zealand`
                                               3.12 10832 1507.2
                                       1
## + nationalityCameroon
                                       1
                                               2.64 10833 1507.2
## + nationalityMorocco
                                               2.64 10833 1507.2
                                       1
                                               2.59 10833 1507.2
## + clubArsenal
                                       1
## + nationalityNetherlands
                                               2.55 10833 1507.2
                                       1
## + nationalityJamaica
                                       1
                                               2.51 10833 1507.2
## + nationalityCanada
                                               2.37 10833 1507.2
## + `nationalityNorthern Ireland`
                                       1
                                               2.10 10834 1507.2
## + nationalityTunisia
                                        1
                                               1.83 10834 1507.2
                                               1.73 10834 1507.2
## + nationalityEgypt
                                       1
## + nationalityChile
                                       1
                                               1.33 10834 1507.2
## + nationalityRomania
                                       1
                                               1.28 10834 1507.2
## + nationalitySlovenia
                                               0.97 10835 1507.3
```

```
0.97 10835 1507.3
## + nationalityGhana
## + nationalityPortugal
                                              0.93 10835 1507.3
## + nationalityCroatia
                                              0.70 10835 1507.3
## + nationalityGermany
                                              0.56 10835 1507.3
                                      1
## + nationalityPoland
                                      1
                                              0.50 10835 1507.3
## + clubEverton
                                     1
                                              0.43 10835 1507.3
## + nationalityBrazil
                                              0.38 10835 1507.3
## + `clubLeicester+City`
                                     1
                                             0.32 10835 1507.3
## + nationalityMali
                                      1
                                              0.15 10835 1507.3
## + `clubCrystal+Palace`
                                              0.15 10835 1507.3
                                     1
## + nationalityJapan
                                              0.11 10836 1507.3
                                              0.04 10836 1507.3
## + nationalityAustralia
                                       1
                                             0.04 10836 1507.3
## + club_id
                                       1
## + nationalityAustria
                                             0.02 10836 1507.3
## + `nationalityUnited States`
                                           0.02 10836 1507.3
                                       1
                                           0.00 10836 1507.3
## + positionGK
                                       1
## + nationalityDenmark
                                           0.00 10836 1507.3
                                       1
## + clubSwansea
                                            0.00 10836 1507.3
## - nationalityArgentina
                                           96.22 10932 1507.4
                                       1
                                           105.49 10941 1507.8
## - position cat
                                       1
## - clubBurnley
                                       1
                                           107.37 10943 1507.8
## - new foreign
                                          131.56 10967 1508.9
                                         152.36 10988 1509.7
## - positionSS
                                      1
## - positionDM
                                      1
                                           184.69 11020 1511.1
## - clubChelsea
                                           195.02 11031 1511.5
                                      1
## - nationalityFrance
                                      1
                                           268.04 11104 1514.5
## - nationalityBelgium
                                           320.61 11156 1516.7
                                       1
                                           485.19 11321 1523.5
## - positionCF
## - big_club
                                       1
                                           684.44 11520 1531.5
                                         686.51 11522 1531.6
## - `clubManchester+City`
                                      1
                                          781.81 11617 1535.3
## - fpl_points
                                       1
## - page_views
                                       1
                                           1859.91 12696 1576.2
                                           1973.68 12809 1580.3
## - fpl_value
                                           2553.27 13389 1596.6
## - ns(age, 3)
## Step: AIC=1505.27
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
##
       fpl_points + `clubManchester+City` + positionCF + positionSS +
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
       positionDM + position_cat + nationalityArgentina + clubBurnley +
##
##
       clubBournemouth + nationalitySenegal + nationalityNorway +
       positionRM + clubSouthampton + nationalityEcuador + `nationalityCzech Republic` +
##
       nationalitySwitzerland
##
##
                                      Df Sum of Sq
                                                     RSS
                                             49.70 10738 1505.1
## + positionRW
## <none>
                                                   10788 1505.3
## - nationalitySwitzerland
                                             47.95 10836 1505.3
                                       1
## + `clubNewcastle+United`
                                       1
                                             42.90 10745 1505.4
## + nationalityKenya
                                       1
                                             42.71 10745 1505.4
                                            42.18 10746 1505.5
## + positionCM
                                       1
## - `nationalityCzech Republic`
                                      1 52.09 10840 1505.5
## + clubWatford
                                      1
                                           40.55 10747 1505.5
## + clubLiverpool
                                            37.99 10750 1505.6
```

```
57.02 10845 1505.7
## - clubBournemouth
## + clubHuddersfield
                                              35.93 10752 1505.7
                                              58.05 10846 1505.7
## - nationalityEcuador
## + nationalitySerbia
                                              30.11 10758 1506.0
                                        1
## + `clubBrighton+and+Hove`
                                        1
                                              29.46 10758 1506.0
## + nationalityNigeria
                                              28.66 10759 1506.0
                                        1
## + clubTottenham
                                              27.03 10761 1506.1
## - nationalityNorway
                                              68.53 10856 1506.2
                                        1
## + nationalitySpain
                                              24.93 10763 1506.2
## + positionLB
                                        1
                                              24.22 10763 1506.2
## + `nationalityTrinidad and Tobago`
                                              23.61 10764 1506.3
                                              70.84 10858 1506.3
## - clubSouthampton
                                        1
## + `nationalityCote d'Ivoire`
                                        1
                                              22.53 10765 1506.3
                                              22.11 10766 1506.3
## + `clubWest+Brom`
                                              22.06 10766 1506.3
## + nationalityEngland
                                        1
## + nationalityScotland
                                        1
                                              20.59 10767 1506.4
                                              19.83 10768 1506.4
## + nationalityBermuda
                                        1
## + nationalityEstonia
                                              18.62 10769 1506.5
## + `nationalityThe Gambia`
                                              18.18 10769 1506.5
                                        1
## + `clubStoke+City`
                                        1
                                              15.46 10772 1506.6
## + `clubManchester+United`
                                        1
                                              15.44 10772 1506.6
## + positionLW
                                              14.65 10773 1506.6
## - nationalitySenegal
                                              79.70 10867 1506.7
                                        1
## + `nationalitySouth Korea`
                                              13.28 10774 1506.7
                                              80.86 10868 1506.7
## - positionRM
                                        1
## + nationalityIsrael
                                        1
                                              12.32 10775 1506.7
## + nationalityVenezuela
                                              11.35 10776 1506.8
                                        1
                                              11.31 10776 1506.8
## + nationalityColombia
                                        1
                                              10.96 10777 1506.8
## + positionCB
                                        1
## + nationalityIreland
                                       1
                                              10.43 10777 1506.8
## + nationalityCuracao
                                        1
                                               9.21 10778 1506.9
## + nationalityArmenia
                                        1
                                               9.13 10778 1506.9
## + nationalityFinland
                                        1
                                               7.94 10780 1506.9
                                               7.68 10780 1506.9
## + nationalityItaly
                                        1
## + `nationalityCongo DR`
                                        1
                                               7.21 10780 1507.0
## + nationalityWales
                                               5.43 10782 1507.0
                                        1
## + clubArsenal
                                               5.08 10783 1507.0
## + positionRB
                                               4.99 10783 1507.0
                                        1
## + nationalityIceland
                                        1
                                               4.75 10783 1507.1
## + positionLM
                                               4.52 10783 1507.1
                                        1
## + nationalityUruguay
                                               4.03 10784 1507.1
## + region
                                        1
                                               3.72 10784 1507.1
## + nationalityBosnia
                                               3.64 10784 1507.1
                                        1
## + nationalitySweden
                                               3.28 10784 1507.1
                                        1
                                               3.25 10784 1507.1
## + new_signing
                                        1
                                               3.19 10784 1507.1
## + `nationalityNew Zealand`
                                        1
## + nationalityGreece
                                        1
                                               3.07 10785 1507.1
## + nationalityMorocco
                                        1
                                               2.81 10785 1507.2
## + `clubWest+Ham`
                                        1
                                               2.80 10785 1507.2
## + nationalityCameroon
                                        1
                                               2.73 10785 1507.2
## + nationalityJamaica
                                               2.57 10785 1507.2
                                        1
## + nationalityCanada
                                       1
                                               2.43 10785 1507.2
## + nationalityNetherlands
                                        1
                                               1.91 10786 1507.2
## + `nationalityNorthern Ireland`
                                               1.91 10786 1507.2
```

```
1.83 10786 1507.2
## + nationalityTunisia
                                              1.35 10786 1507.2
## + nationalityChile
                                              1.33 10786 1507.2
## + nationalityEgypt
## + nationalityRomania
                                              1.20 10786 1507.2
                                      1
## + nationalitySlovenia
                                       1
                                              1.06 10787 1507.2
## + nationalityPortugal
                                              0.94 10787 1507.2
                                      1
## + nationalityGermany
                                              0.86 10787 1507.2
                                      1
                                              0.72 10787 1507.2
## + nationalityCroatia
## + nationalityBrazil
                                      1
                                              0.61 10787 1507.2
## + nationalityGhana
                                      1
                                              0.58 10787 1507.2
## + nationalityPoland
                                      1
                                              0.50 10787 1507.2
                                              0.36 10787 1507.2
## + `clubCrystal+Palace`
                                      1
## + nationalityMali
                                       1
                                              0.19 10787 1507.3
## + nationalityJapan
                                              0.13 10788 1507.3
## + clubEverton
                                              0.11 10788 1507.3
                                      1
## + `clubLeicester+City`
                                       1
                                              0.07 10788 1507.3
                                              0.07 10788 1507.3
## + clubSwansea
                                       1
## + nationalityAustralia
                                              0.04 10788 1507.3
                                              0.02 10788 1507.3
## + positionGK
                                      1
## + nationalityAustria
                                       1
                                              0.02 10788 1507.3
## + nationalityDenmark
                                       1
                                              0.01 10788 1507.3
## + `nationalityUnited States`
                                              0.01 10788 1507.3
## + club_id
                                              0.00 10788 1507.3
                                       1
## - nationalityArgentina
                                       1
                                             98.10 10886 1507.4
                                            102.46 10890 1507.6
## - clubBurnley
                                       1
## - position_cat
                                       1
                                            112.27 10900 1508.0
## - new_foreign
                                            132.62 10920 1508.9
                                       1
                                            148.50 10936 1509.6
## - positionSS
                                       1
                                            158.13 10946 1510.0
## - positionDM
                                      1
## - clubChelsea
                                      1
                                            200.08 10988 1511.7
## - nationalityFrance
                                      1
                                            278.62 11066 1515.0
## - nationalityBelgium
                                       1
                                            322.44 11110 1516.8
## - positionCF
                                            475.19 11263 1523.1
                                            689.57 11477 1531.8
## - big_club
                                       1
## - `clubManchester+City`
                                       1
                                            693.62 11481 1531.9
                                            767.13 11555 1534.9
## - fpl_points
                                       1
## - page views
                                       1
                                          1849.43 12637 1576.0
## - fpl_value
                                       1
                                           1988.34 12776 1581.1
## - ns(age, 3)
                                           2541.17 13329 1596.6
##
## Step: AIC=1505.14
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
       positionDM + position_cat + nationalityArgentina + clubBurnley +
##
       clubBournemouth + nationalitySenegal + nationalityNorway +
##
       positionRM + clubSouthampton + nationalityEcuador + `nationalityCzech Republic` +
##
##
       nationalitySwitzerland + positionRW
##
##
                                      Df Sum of Sq
                                                     RSS
                                                            AIC
                                             55.94 10682 1504.7
## + positionLW
## <none>
                                                   10738 1505.1
## + clubWatford
                                       1
                                             44.90 10693 1505.2
## - position_cat
                                             49.70 10788 1505.3
```

```
49.70 10788 1505.3
## - positionRW
## + nationalityKenya
                                              43.27 10695 1505.3
## + `clubNewcastle+United`
                                              40.68 10697 1505.4
## - nationalitySwitzerland
                                              53.83 10792 1505.4
                                       1
## - `nationalityCzech Republic`
                                       1
                                              54.46 10792 1505.5
## + clubLiverpool
                                              38.66 10699 1505.5
                                       1
## + clubHuddersfield
                                              33.85 10704 1505.7
                                              32.12 10706 1505.8
## + nationalityNigeria
                                       1
## - clubBournemouth
                                       1
                                              61.60 10800 1505.8
## - nationalityEcuador
                                       1
                                              62.48 10800 1505.8
## + nationalitySerbia
                                       1
                                              28.85 10709 1505.9
                                              26.71 10711 1506.0
## + clubTottenham
                                       1
## + positionLB
                                       1
                                              25.95 10712 1506.0
                                              68.57 10806 1506.1
## - nationalityNorway
## + `clubBrighton+and+Hove`
                                              24.94 10713 1506.1
                                        1
## + `nationalityTrinidad and Tobago`
                                              24.58 10713 1506.1
                                              70.41 10808 1506.2
## - clubSouthampton
                                        1
## + nationalitySpain
                                              22.85 10715 1506.2
                                              22.39 10716 1506.2
## + positionCM
                                        1
                                              21.66 10716 1506.2
## + nationalityEngland
                                        1
## + `clubWest+Brom`
                                              21.56 10716 1506.2
## - nationalitySenegal
                                              72.64 10811 1506.2
                                              20.24 10718 1506.3
## + nationalityScotland
                                       1
## + `nationalityCote d'Ivoire`
                                              19.88 10718 1506.3
                                       1
                                              19.33 10719 1506.3
## + nationalityBermuda
                                       1
## + nationalityEstonia
                                       1
                                              18.20 10720 1506.4
## + `clubManchester+United`
                                              15.57 10722 1506.5
                                       1
## + `clubStoke+City`
                                              14.54 10723 1506.5
                                       1
                                       1
                                              11.01 10727 1506.7
## + nationalityVenezuela
## + nationalityIsrael
                                       1
                                              11.00 10727 1506.7
## + `nationalityThe Gambia`
                                       1
                                              10.67 10727 1506.7
## + `nationalitySouth Korea`
                                       1
                                              10.63 10727 1506.7
## + nationalityColombia
                                              10.03 10728 1506.7
                                               9.99 10728 1506.7
## + nationalityIreland
                                       1
## + nationalityCuracao
                                       1
                                               9.59 10728 1506.7
## + nationalityFinland
                                               8.92 10729 1506.8
                                       1
## + positionCB
                                      1
                                               8.89 10729 1506.8
## + `nationalityCongo DR`
                                       1
                                               8.56 10729 1506.8
## + nationalityItaly
                                       1
                                               7.94 10730 1506.8
## + positionLM
                                               7.80 10730 1506.8
## + nationalityArmenia
                                               7.15 10731 1506.8
## + positionRB
                                       1
                                               5.97 10732 1506.9
                                               5.19 10733 1506.9
## + region
                                       1
## + clubArsenal
                                       1
                                               4.78 10733 1506.9
                                               4.11 10734 1507.0
## + nationalityBosnia
## + `clubWest+Ham`
                                               4.07 10734 1507.0
                                       1
## + nationalityWales
                                       1
                                               3.95 10734 1507.0
## + nationalityUruguay
                                       1
                                               3.94 10734 1507.0
## + nationalitySweden
                                       1
                                               3.41 10734 1507.0
## - positionRM
                                       1
                                              90.59 10828 1507.0
## + nationalityGreece
                                               3.15 10735 1507.0
                                       1
## + nationalityCanada
                                       1
                                               3.13 10735 1507.0
## + `nationalityNew Zealand`
                                       1
                                               3.09 10735 1507.0
                                               3.07 10735 1507.0
## + nationalityIceland
```

```
3.00 10735 1507.0
## + `nationalityNorthern Ireland`
## + nationalityCameroon
                                             2.57 10735 1507.0
## + nationalityJamaica
                                             2.49 10735 1507.0
## + positionGK
                                             2.33 10736 1507.0
                                      1
## + new signing
                                      1
                                             2.25 10736 1507.0
## + nationalityTunisia
                                             1.91 10736 1507.1
                                      1
## + nationalityNetherlands
                                            1.87 10736 1507.1
                                     1
## + nationalityRomania
                                            1.58 10736 1507.1
## + nationalityBrazil
                                     1
                                             1.28 10737 1507.1
                                             1.17 10737 1507.1
## + nationalityChile
                                     1
## + nationalityPortugal
                                     1
                                             1.16 10737 1507.1
                                             1.08 10737 1507.1
## + nationalityMorocco
                                     1
                                     1
## + nationalitySlovenia
                                             1.01 10737 1507.1
## + `clubCrystal+Palace`
                                             0.91 10737 1507.1
                                    1
## + nationalityPoland
                                             0.86 10737 1507.1
                                     1
                                             0.80 10737 1507.1
## + nationalityEgypt
                                     1
## + nationalityCroatia
                                             0.75 10737 1507.1
                                     1
## + nationalityGhana
                                             0.33 10738 1507.1
## + nationalityGermany
                                             0.30 10738 1507.1
                                    1
                                             0.16 10738 1507.1
## + clubSwansea
                                     1
## + nationalityJapan
                                     1
                                             0.15 10738 1507.1
## + clubEverton
                                             0.10 10738 1507.1
                                     1
                                             0.09 10738 1507.1
## + `clubLeicester+City`
## + nationalityAustria
                                            0.04 10738 1507.1
## + nationalityAustralia
                                            0.03 10738 1507.1
                                     1
## + nationalityDenmark
                                      1
                                            0.02 10738 1507.1
## + `nationalityUnited States`
                                      1
                                            0.02 10738 1507.1
## + nationalityMali
                                           0.00 10738 1507.1
                                      1
## + club_id
                                      1
                                           0.00 10738 1507.1
                                          99.04 10837 1507.4
## - nationalityArgentina
                                     1
                                         105.67 10844 1507.7
## - clubBurnley
                                     1
## - positionDM
                                     1
                                           126.45 10864 1508.5
## - new_foreign
                                     1
                                           134.95 10873 1508.9
                                           168.96 10907 1510.3
## - positionSS
                                      1
## - clubChelsea
                                      1
                                           213.11 10951 1512.2
## - nationalityFrance
                                     1
                                           276.84 11015 1514.8
## - nationalityBelgium
                                     1
                                         316.84 11055 1516.5
## - positionCF
                                     1
                                         524.61 11262 1525.1
## - big club
                                     1
                                           667.86 11406 1530.9
## - `clubManchester+City`
                                     1 692.13 11430 1531.9
## - fpl points
                                     1 758.03 11496 1534.5
## - page_views
                                      1
                                          1811.81 12550 1574.9
                                          2006.98 12745 1582.0
## - fpl value
                                          2574.78 13313 1598.0
## - ns(age, 3)
## Step: AIC=1504.74
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
##
      fpl_points + `clubManchester+City` + positionCF + positionSS +
##
      nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
      positionDM + position_cat + nationalityArgentina + clubBurnley +
##
      clubBournemouth + nationalitySenegal + nationalityNorway +
##
      positionRM + clubSouthampton + nationalityEcuador + `nationalityCzech Republic` +
##
      nationalitySwitzerland + positionRW + positionLW
##
```

```
##
                                       Df Sum of Sq
                                                      RSS
                                               3.29 10685 1502.9
## - position_cat
## - `nationalityCzech Republic`
                                              40.99 10723 1504.5
                                                    10682 1504.7
## <none>
## + nationalityKenya
                                              43.49 10638 1504.9
## + clubWatford
                                              42.82 10639 1504.9
                                        1
## - nationalitySwitzerland
                                              50.63 10733 1504.9
                                              51.81 10734 1505.0
## - nationalityEcuador
                                        1
## - clubBournemouth
                                        1
                                              52.62 10735 1505.0
## + `clubNewcastle+United`
                                        1
                                              40.05 10642 1505.0
## + clubLiverpool
                                        1
                                              38.37 10644 1505.1
                                              55.94 10738 1505.1
## - positionLW
                                        1
## + clubHuddersfield
                                        1
                                              35.70 10646 1505.2
## + positionLB
                                              29.14 10653 1505.5
## - clubSouthampton
                                              65.30 10747 1505.5
                                        1
## + clubTottenham
                                        1
                                              27.58 10654 1505.5
                                              26.90 10655 1505.6
## + nationalityEngland
                                        1
## + nationalitySerbia
                                              25.86 10656 1505.6
## + nationalityNigeria
                                              25.02 10657 1505.7
                                        1
## + `nationalityTrinidad and Tobago`
                                              24.91 10657 1505.7
## + `clubBrighton+and+Hove`
                                              22.84 10659 1505.8
## - nationalityNorway
                                              70.62 10753 1505.8
## + positionGK
                                              21.10 10661 1505.8
                                        1
## + nationalityScotland
                                              20.05 10662 1505.9
                                              19.42 10663 1505.9
## + nationalityBermuda
                                        1
## - nationalitySenegal
                                        1
                                              74.04 10756 1505.9
## + nationalityEstonia
                                              18.33 10664 1506.0
                                        1
## + nationalitySpain
                                        1
                                              18.10 10664 1506.0
## + `nationalityCote d'Ivoire`
                                              17.74 10664 1506.0
                                        1
## + `clubWest+Brom`
                                              17.15 10665 1506.0
                                        1
## + `clubStoke+City`
                                        1
                                              16.44 10666 1506.0
## + positionLM
                                        1
                                              14.66 10667 1506.1
## + `clubManchester+United`
                                              13.02 10669 1506.2
## + `nationalityCongo DR`
                                              11.15 10671 1506.3
                                        1
## + nationalityVenezuela
                                        1
                                              11.07 10671 1506.3
## + nationalityFinland
                                              10.91 10671 1506.3
                                        1
## + `nationalityThe Gambia`
                                              10.67 10671 1506.3
## + nationalityIreland
                                              10.56 10671 1506.3
                                        1
## + region
                                        1
                                              10.18 10672 1506.3
## - positionDM
                                              83.22 10765 1506.3
                                        1
## + nationalityCuracao
                                               9.75 10672 1506.3
## + nationalityIsrael
                                               9.23 10673 1506.3
                                        1
## + positionRB
                                        1
                                               8.29 10674 1506.4
## + nationalityColombia
                                               8.03 10674 1506.4
                                        1
                                               7.68 10674 1506.4
## + nationalityItaly
                                        1
## + `nationalitySouth Korea`
                                               7.21 10675 1506.4
                                        1
## + positionCB
                                        1
                                               7.09 10675 1506.4
## + nationalityWales
                                               5.65 10676 1506.5
## + nationalityBosnia
                                        1
                                               4.99 10677 1506.5
## + `nationalityNorthern Ireland`
                                        1
                                               4.99 10677 1506.5
                                               4.87 10677 1506.5
## + nationalityIceland
                                        1
## + nationalityChile
                                        1
                                               4.34 10678 1506.5
## + nationalitySweden
                                        1
                                               4.27 10678 1506.6
## + new_signing
                                               4.18 10678 1506.6
```

```
4.18 10678 1506.6
## + nationalityPortugal
## + nationalityCanada
                                            4.17 10678 1506.6
## + nationalityArmenia
                                            3.92 10678 1506.6
## + clubArsenal
                                    1
                                            3.84 10678 1506.6
## + nationalityUruguay
                                    1
                                            3.79 10678 1506.6
## + `clubWest+Ham`
                                    1
                                            3.64 10678 1506.6
## + nationalityGreece
                                          3.29 10679 1506.6
                                    1
## + `nationalityNew Zealand`
                                          2.98 10679 1506.6
                                    1 2.71 10679 1506.6
## + nationalityNetherlands
## + nationalityRomania
                                          2.48 10680 1506.6
                                    1
## + nationalityCameroon
                                           2.44 10680 1506.6
                                    1
                                           2.35 10680 1506.6
## + nationalityJamaica
                                    1
                                        91.00 10773 1506.6
## - positionRW
                                          2.02 10680 1506.7
## + nationalityTunisia
                                    1
                                         1.55 10680 1506.7
1.44 10000
## + nationalityPoland
                                    1
                                           1.68 10680 1506.7
                                    1
## + nationalityMorocco
                                    1
## + positionCM
## + nationalityBrazil
                                            0.96 10681 1506.7
## + nationalitySlovenia
                                   1
                                            0.81 10681 1506.7
## + nationalityCroatia
                                            0.72 10681 1506.7
                                    1
## + `clubCrystal+Palace`
                                    1
                                          0.70 10681 1506.7
## + nationalityMali
                                           0.54 10681 1506.7
                                          0.30 10682 1506.7
## + nationalityDenmark
                                    1
## + nationalityGermany
                                    1
                                           0.21 10682 1506.7
                                    1
                                            0.15 10682 1506.7
## + clubEverton
## + nationalityJapan
                                            0.13 10682 1506.7
## + nationalityEgypt
                                    1
                                            0.11 10682 1506.7
## + `clubLeicester+City`
                                            0.07 10682 1506.7
                                     1
                                          0.07 10682 1506.7
## + nationalityAustria
                                    1
                                          0.05 10682 1506.7
## + club_id
                                    1
                                    1 0.05 10682 1506.7
1 0.04 10682 1506.7
## + clubSwansea
## + nationalityAustralia
                                    1
                                          0.04 10682 1506.7
## + `nationalityUnited States`
## + nationalityGhana
                                          0.02 10682 1506.7
                                     1
                                         93.70 10776 1506.8
## - nationalityArgentina
                                     1
## - positionRM
                                     1
                                        105.89 10788 1507.3
## - clubBurnley
                                    1
                                        115.35 10797 1507.7
## - new_foreign
                                    1
                                        125.31 10807 1508.1
## - positionSS
                                    1
                                          204.42 10886 1511.5
## - clubChelsea
                                          227.77 10910 1512.5
                                    1
## - nationalityFrance
                                          273.05 10955 1514.3
## - nationalityBelgium
                                    1
                                          320.94 11003 1516.4
## - positionCF
                                          558.66 11241 1526.2
                                     1
                                    1 663.72 11346 1530.5
## - big_club
## - `clubManchester+City`
                                        692.87 11375 1531.7
                                    1
                                         755.37 11437 1534.2
## - fpl_points
                                         1788.71 12471 1574.0
## - page_views
                                     1
## - fpl_value
                                         2017.19 12699 1582.3
## - ns(age, 3)
                                         2541.06 13223 1596.9
## Step: AIC=1502.88
## market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
      fpl_points + `clubManchester+City` + positionCF + positionSS +
##
      nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
```

```
##
       positionDM + nationalityArgentina + clubBurnley + clubBournemouth +
       nationalitySenegal + nationalityNorway + positionRM + clubSouthampton +
##
       nationalityEcuador + `nationalityCzech Republic` + nationalitySwitzerland +
##
##
       positionRW + positionLW
##
##
                                      Df Sum of Sq
                                                      RSS
                                                             AIC
## - `nationalityCzech Republic`
                                              40.08 10725 1502.6
                                                    10685 1502.9
## <none>
## + clubWatford
                                       1
                                              43.18 10642 1503.0
## - nationalitySwitzerland
                                             49.82 10735 1503.0
                                       1
## + nationalityKenya
                                             42.96 10642 1503.0
## - nationalityEcuador
                                             51.51 10737 1503.1
                                       1
## + `clubNewcastle+United`
                                       1
                                             40.84 10644 1503.1
## - clubBournemouth
                                             52.72 10738 1503.2
                                       1
## + clubLiverpool
                                             39.53 10646 1503.2
                                       1
## + clubHuddersfield
                                       1
                                             35.71 10650 1503.3
## - clubSouthampton
                                             64.76 10750 1503.7
                                       1
## + nationalityEngland
                                             27.86 10657 1503.7
## + clubTottenham
                                             27.74 10658 1503.7
                                       1
                                             26.31 10659 1503.8
## + positionLB
                                       1
## + nationalityNigeria
                                             25.10 10660 1503.8
## + nationalitySerbia
                                             24.89 10660 1503.8
## + `nationalityTrinidad and Tobago`
                                             24.11 10661 1503.8
                                       1
## - nationalityNorway
                                             70.46 10756 1503.9
## + `clubBrighton+and+Hove`
                                             22.18 10663 1503.9
                                       1
## + positionGK
                                             21.81 10664 1503.9
## + nationalityScotland
                                       1
                                             21.35 10664 1504.0
## - nationalitySenegal
                                             73.41 10759 1504.0
                                       1
## + nationalityBermuda
                                             19.04 10666 1504.1
                                       1
## + nationalityEstonia
                                       1
                                          18.47 10667 1504.1
                                             18.11 10667 1504.1
## + `nationalityCote d'Ivoire`
                                       1
## + nationalitySpain
                                       1
                                             17.50 10668 1504.1
## + `clubWest+Brom`
                                       1
                                             17.37 10668 1504.1
## + positionLM
                                             16.55 10669 1504.2
                                       1
## + `clubStoke+City`
                                             16.50 10669 1504.2
                                       1
## + `clubManchester+United`
                                       1
                                             12.77 10672 1504.3
## + nationalityFinland
                                       1 11.98 10673 1504.4
## + `nationalityCongo DR`
                                       1
                                             11.43 10674 1504.4
## + nationalityVenezuela
                                             10.91 10674 1504.4
                                       1
## + `nationalityThe Gambia`
                                             10.88 10674 1504.4
                                       1
## + region
                                             10.82 10674 1504.4
## + nationalityIreland
                                       1
                                             10.70 10675 1504.4
## - positionDM
                                             83.01 10768 1504.4
                                       1
## + nationalityCuracao
                                              9.54 10676 1504.5
                                       1
## + nationalityIsrael
                                              8.57 10677 1504.5
                                       1
                                              8.48 10677 1504.5
## + positionCB
                                       1
## + positionRB
                                       1
                                              7.63 10678 1504.5
## + nationalityItaly
                                              7.53 10678 1504.6
## + `nationalitySouth Korea`
                                       1
                                              7.21 10678 1504.6
## + nationalityColombia
                                       1
                                              6.87 10678 1504.6
## + nationalityBosnia
                                              5.73 10680 1504.6
                                       1
## + nationalityWales
                                              5.70 10680 1504.6
                                       1
## + `nationalityNorthern Ireland`
                                       1
                                              5.54 10680 1504.6
## + nationalityIceland
                                              5.35 10680 1504.7
                                       1
```

```
5.23 10680 1504.7
## + nationalityChile
## + nationalitySweden
                                             4.82 10680 1504.7
## + nationalityCanada
                                             4.51 10681 1504.7
## + nationalityPortugal
                                             4.47 10681 1504.7
                                     1
## + new_signing
                                     1
                                             3.88 10681 1504.7
## + nationalityUruguay
                                    1
                                             3.81 10682 1504.7
## + `clubWest+Ham`
                                             3.66 10682 1504.7
                                     1
## + clubArsenal
                                             3.36 10682 1504.7
## + position_cat
                                     1
                                             3.29 10682 1504.7
                                             3.25 10682 1504.7
## + nationalityArmenia
                                    1
## + nationalityGreece
                                    1
                                             3.22 10682 1504.7
                                             3.13 10682 1504.8
## + nationalityRomania
                                     1
## + `nationalityNew Zealand`
                                     1
                                             3.06 10682 1504.8
## + nationalityNetherlands
                                             2.77 10682 1504.8
                                     1
## + nationalityCameroon
                                             2.62 10683 1504.8
                                     1
## + nationalityJamaica
                                     1
                                             2.39 10683 1504.8
                                             2.09 10683 1504.8
## + nationalityPoland
                                     1
## + nationalityTunisia
                                             1.92 10683 1504.8
## + nationalityMorocco
                                    1
                                             1.14 10684 1504.8
                                    1
                                             1.07 10684 1504.8
## + nationalityBrazil
                                           0.88 10684 1504.8
## + nationalitySlovenia
                                    1
## + nationalityCroatia
                                           0.74 10684 1504.8
                                    1
                                           0.65 10685 1504.8
## + `clubCrystal+Palace`
## + nationalityMali
                                     1
                                            0.58 10685 1504.9
                                    1
                                             0.26 10685 1504.9
## + nationalityDenmark
## + nationalityGermany
                                    1
                                             0.23 10685 1504.9
## + nationalityJapan
                                     1
                                             0.13 10685 1504.9
                                             0.09 10685 1504.9
## + clubEverton
                                     1
## + nationalityEgypt
                                    1
                                             0.09 10685 1504.9
## + nationalityAustria
                                             0.04 10685 1504.9
                                     1
## + `clubLeicester+City`
                                     1
                                            0.03 10685 1504.9
## + club_id
                                      1
                                            0.02 10685 1504.9
## + `nationalityUnited States`
                                            0.02 10685 1504.9
                                            0.02 10685 1504.9
## + nationalityGhana
                                      1
                                            0.01 10685 1504.9
## + clubSwansea
                                      1
                                           0.00 10685 1504.9
## + positionCM
                                      1
## + nationalityAustralia
                                           0.00 10685 1504.9
## - nationalityArgentina
                                     1
                                          94.11 10779 1504.9
## - positionLW
                                     1
                                           102.36 10788 1505.3
                                           111.12 10796 1505.6
## - positionRM
                                     1
                                           118.74 10804 1506.0
## - clubBurnley
## - new foreign
                                           131.96 10817 1506.5
                                      1
                                           151.44 10837 1507.4
## - positionRW
                                      1
                                           231.10 10916 1510.7
## - clubChelsea
                                     1
                                           233.37 10919 1510.8
## - positionSS
                                     1
                                           273.44 10959 1512.5
## - nationalityFrance
                                     1
## - nationalityBelgium
                                      1
                                           322.78 11008 1514.6
## - big_club
                                           692.41 11378 1529.8
                                      1
## - `clubManchester+City`
                                      1
                                           695.47 11381 1529.9
                                           807.11 11492 1534.4
## - fpl_points
                                      1
                                           833.16 11518 1535.4
## - positionCF
                                      1
## - page_views
                                     1
                                          1795.58 12481 1572.3
## - fpl_value
                                     1
                                          2253.94 12939 1588.9
                                          2538.27 13224 1594.9
## - ns(age, 3)
```

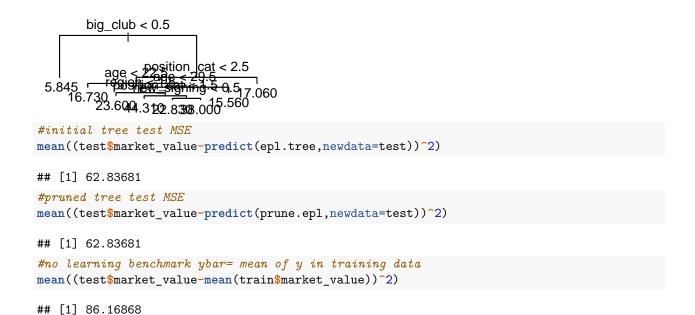
```
##
## Step: AIC=1502.6
  market_value ~ fpl_value + big_club + ns(age, 3) + page_views +
       fpl_points + `clubManchester+City` + positionCF + positionSS +
##
##
       nationalityFrance + nationalityBelgium + new_foreign + clubChelsea +
##
       positionDM + nationalityArgentina + clubBurnley + clubBournemouth +
##
       nationalitySenegal + nationalityNorway + positionRM + clubSouthampton +
       nationalityEcuador + nationalitySwitzerland + positionRW +
##
##
       positionLW
##
##
                                       Df Sum of Sq
                                                      RSS
                                                              AIC
                                                    10725 1502.6
## <none>
                                              43.60 10682 1502.7
## + nationalityKenya
                                              49.77 10775 1502.7
## - nationalityEcuador
## - clubBournemouth
                                              49.85 10775 1502.7
                                        1
## - nationalitySwitzerland
                                        1
                                              50.39 10776 1502.8
                                              42.08 10683 1502.8
## + clubWatford
                                        1
## + `clubNewcastle+United`
                                              41.69 10684 1502.8
## + `nationalityCzech Republic`
                                              40.08 10685 1502.9
                                        1
## + clubLiverpool
                                        1
                                              35.96 10689 1503.1
## + clubHuddersfield
                                        1
                                              34.37 10691 1503.1
## + clubTottenham
                                              30.59 10695 1503.3
                                              65.20 10791 1503.4
## - clubSouthampton
                                        1
## + positionLB
                                              25.72 10700 1503.5
## + nationalitySerbia
                                              24.94 10700 1503.5
                                        1
## + nationalityEngland
                                              24.35 10701 1503.6
## + nationalityNigeria
                                              24.20 10701 1503.6
                                        1
## + `nationalityTrinidad and Tobago`
                                              24.11 10701 1503.6
                                        1
## - nationalityNorway
                                              70.70 10796 1503.6
                                              20.44 10705 1503.7
## + nationalityScotland
                                        1
## - nationalitySenegal
                                        1
                                              74.13 10800 1503.8
## + nationalityBermuda
                                        1
                                              19.06 10706 1503.8
## + nationalitySpain
                                              18.19 10707 1503.8
                                              17.97 10707 1503.8
## + nationalityEstonia
                                        1
## + `clubStoke+City`
                                        1
                                              17.66 10708 1503.8
## + positionGK
                                              17.42 10708 1503.9
                                        1
## + `nationalityCote d'Ivoire`
                                              17.07 10708 1503.9
## + `clubWest+Brom`
                                              16.10 10709 1503.9
                                        1
## + positionLM
                                        1
                                              16.01 10709 1503.9
## + `clubManchester+United`
                                              14.27 10711 1504.0
                                        1
## + `clubBrighton+and+Hove`
                                              14.06 10711 1504.0
## + nationalityFinland
                                              12.20 10713 1504.1
                                        1
## + `nationalityCongo DR`
                                              11.89 10714 1504.1
                                        1
## + nationalityIreland
                                              11.43 10714 1504.1
                                        1
                                              10.94 10714 1504.1
## + nationalityVenezuela
                                              10.85 10714 1504.1
## + region
                                        1
## + `nationalityThe Gambia`
                                        1
                                              10.65 10715 1504.2
                                               9.73 10716 1504.2
## + positionCB
## + nationalityCuracao
                                        1
                                               9.55 10716 1504.2
## - positionDM
                                        1
                                              85.06 10810 1504.2
                                               8.46 10717 1504.2
## + nationalityIsrael
                                        1
## + nationalityItaly
                                       1
                                               7.45 10718 1504.3
## + positionRB
                                       1
                                               7.10 10718 1504.3
## + nationalityColombia
                                               6.75 10719 1504.3
```

```
6.74 10719 1504.3
## + `nationalitySouth Korea`
## + clubArsenal
                                             6.45 10719 1504.3
## + nationalityWales
                                             6.44 10719 1504.3
                                             5.96 10719 1504.3
## + nationalityChile
                                     1
## + nationalityBosnia
                                      1
                                             5.72 10720 1504.4
## + nationalityIceland
                                             5.42 10720 1504.4
                                      1
## + nationalityPortugal
                                             5.29 10720 1504.4
## + `nationalityNorthern Ireland`
                                           5.02 10720 1504.4
                                      1
## + new_signing
                                      1
                                             4.94 10720 1504.4
## + nationalitySweden
                                      1
                                             4.89 10720 1504.4
## + nationalityCanada
                                             4.64 10721 1504.4
                                             3.96 10721 1504.4
## + nationalityUruguay
                                      1
## + `clubWest+Ham`
                                      1
                                             3.79 10722 1504.4
                                             3.21 10722 1504.5
## + nationalityArmenia
## + nationalityRomania
                                             3.08 10722 1504.5
                                      1
## + `nationalityNew Zealand`
                                     1
                                             3.03 10722 1504.5
## + nationalityGreece
                                             3.00 10722 1504.5
                                      1
## + nationalityCameroon
                                             2.69 10723 1504.5
## + nationalityJamaica
                                             2.53 10723 1504.5
                                     1
## + nationalityPoland
                                     1
                                             2.50 10723 1504.5
                                    1
## + nationalityNetherlands
                                             2.44 10723 1504.5
## + position_cat
                                             2.38 10723 1504.5
                                     1
                                            1.94 10723 1504.5
## + nationalityTunisia
## + nationalityMorocco
                                     1
                                             1.36 10724 1504.5
                                             1.23 10724 1504.5
## + nationalityBrazil
                                     1
## + `clubCrystal+Palace`
                                     1
                                             0.87 10724 1504.6
## + nationalitySlovenia
                                             0.86 10724 1504.6
                                      1
                                             0.85 10724 1504.6
## + club_id
                                      1
## + nationalityCroatia
                                     1
                                             0.80 10724 1504.6
## + nationalityMali
                                     1
                                             0.72 10725 1504.6
                                     1
## + nationalityGermany
                                             0.34 10725 1504.6
## + nationalityDenmark
                                     1
                                             0.27 10725 1504.6
## + nationalityJapan
                                     1
                                             0.13 10725 1504.6
## + clubEverton
                                             0.06 10725 1504.6
                                     1
                                             0.04 10725 1504.6
## + clubSwansea
                                     1
## + nationalityEgypt
                                     1
                                             0.04 10725 1504.6
## + nationalityAustria
                                             0.03 10725 1504.6
## + `clubLeicester+City`
                                             0.03 10725 1504.6
                                      1
## + `nationalityUnited States`
                                      1
                                             0.01 10725 1504.6
                                             0.01 10725 1504.6
## + positionCM
                                      1
## + nationalityGhana
                                             0.00 10725 1504.6
## + nationalityAustralia
                                             0.00 10725 1504.6
                                      1
## - nationalityArgentina
                                            97.30 10823 1504.8
                                      1
                                           111.19 10836 1505.3
## - positionRM
                                      1
## - clubBurnley
                                           117.44 10843 1505.6
                                      1
                                           119.92 10845 1505.7
## - positionLW
                                      1
                                           131.41 10857 1506.2
## - new_foreign
                                      1
## - positionRW
                                     1
                                           153.01 10878 1507.1
## - positionSS
                                     1
                                           234.65 10960 1510.6
                                           238.06 10963 1510.7
## - clubChelsea
                                      1
                                    1
## - nationalityFrance
                                           275.81 11001 1512.3
                                     1
                                           326.09 11051 1514.4
## - nationalityBelgium
## - big_club
                                     1
                                           675.93 11401 1528.7
## - `clubManchester+City`
                                           705.99 11431 1529.9
```

```
## - fpl points
                                             799.49 11525 1533.7
## - positionCF
                                        1
                                             839.33 11565 1535.3
## - page views
                                        1
                                            1797.76 12523 1571.9
## - fpl_value
                                            2273.18 12998 1589.0
## - ns(age, 3)
                                            2568.49 13294 1595.4
print(all_pred_step$call)
## lm(formula = market_value ~ fpl_value + big_club + ns(age, 3) +
       page views + fpl points + `clubManchester+City` + positionCF +
##
       positionSS + nationalityFrance + nationalityBelgium + new foreign +
##
##
       clubChelsea + positionDM + nationalityArgentina + clubBurnley +
##
       clubBournemouth + nationalitySenegal + nationalityNorway +
##
       positionRM + clubSouthampton + nationalityEcuador + nationalitySwitzerland +
       positionRW + positionLW, data = epl)
##
market value ~ fpl value + big club + page views + positionCF + positionDM + nationalityBelgium + age
+ fpl points + nationalityEngland + clubManchester+City + positionSS + nationalityFrance + clubChelsea
+ nationalityNigeria + nationalityNorway + new foreign + clubNewcastle+United + nationalityScotland
+ nationalityArgentina + nationalitySenegal + clubBrighton+and+Hove + nationalityCzech Republic +
clubLiverpool + positionLW + positionRW + clubSouthampton + nationalityEcuador
market_value ~ fpl_value + big_club + ns(age, 3) +
page_views + fpl_points + `clubManchester+City` + clubChelsea +
nationalityFrance + positionCF + nationalityBelgium + positionSS +
positionDM + clubBurnley + new_foreign + nationalityArgentina +
nationalityNorway + positionRM + clubBournemouth + nationalitySenegal +
clubSouthampton + nationalityEcuador + positionRW + positionLW +
nationalitySwitzerland
market value ~ fpl value + page views + ns(age,
3) + big_club + fpl_points + nationalityBelgium + positionDM +
nationalityNorway + `clubManchester+City` + nationalityFrance +
positionCF + clubChelsea + positionSS + clubSouthampton +
clubBurnley + `nationalityCzech Republic` + clubLiverpool +
nationalityEcuador + new_foreign + positionRW + positionLW
epl.back.forward.fit=lm(market_value ~ fpl_value + page_views + ns(age,
    3) + big_club + fpl_points + nationalityBelgium + positionDM +
    nationalityNorway + `clubManchester+City` + nationalityFrance +
    positionCF + clubChelsea + positionSS + clubSouthampton +
    clubBurnley + `nationalityCzech Republic` + clubLiverpool +
    nationalityEcuador + new_foreign + positionRW + positionLW ,data=train)
summary(epl.back.forward.fit)
##
## Call:
## lm(formula = market_value ~ fpl_value + page_views + ns(age,
       3) + big_club + fpl_points + nationalityBelgium + positionDM +
##
       nationalityNorway + `clubManchester+City` + nationalityFrance +
##
       positionCF + clubChelsea + positionSS + clubSouthampton +
##
##
       clubBurnley + `nationalityCzech Republic` + clubLiverpool +
##
       nationalityEcuador + new_foreign + positionRW + positionLW,
       data = train)
##
##
```

```
## Residuals:
##
      Min
               1Q Median
                               30
                                      Max
                            2.870 18.138
## -19.354 -3.042 -0.311
## Coefficients: (1 not defined because of singularities)
                                Estimate Std. Error t value Pr(>|t|)
##
## (Intercept)
                              -2.057e+01 2.140e+00 -9.611 < 2e-16 ***
                               3.575e+00 4.280e-01
                                                    8.354 2.00e-15 ***
## fpl_value
## page_views
                              3.767e-03 4.796e-04
                                                     7.854 6.05e-14 ***
## ns(age, 3)1
                              -1.713e+00 1.303e+00 -1.315 0.189442
## ns(age, 3)2
                              1.003e+01 3.274e+00
                                                     3.065 0.002360 **
## ns(age, 3)3
                              -6.363e+00
                                         1.959e+00 -3.248 0.001285 **
## big_club
                              3.607e+00 8.734e-01
                                                      4.129 4.64e-05 ***
                                                    5.517 7.09e-08 ***
## fpl_points
                              4.495e-02 8.146e-03
## nationalityBelgium
                               4.489e+00 1.403e+00
                                                      3.199 0.001517 **
## positionDM
                               2.991e+00 1.045e+00
                                                      2.861 0.004498 **
## nationalityNorway
                                      NA
                                                 NA
                                                         NΑ
                                                                  NΑ
## `clubManchester+City`
                              7.384e+00 1.473e+00
                                                      5.013 8.87e-07 ***
                              3.848e+00 1.157e+00
                                                     3.327 0.000981 ***
## nationalityFrance
## positionCF
                              -4.404e+00 9.945e-01 -4.429 1.30e-05 ***
                                                     3.449 0.000638 ***
## clubChelsea
                              5.150e+00 1.493e+00
## positionSS
                              -7.025e+00 2.714e+00 -2.589 0.010074 *
                              -2.013e-01 1.419e+00 -0.142 0.887285
## clubSouthampton
                              -2.288e+00 1.468e+00 -1.558 0.120141
## clubBurnley
## `nationalityCzech Republic` -4.991e+00 3.674e+00 -1.359 0.175239
## clubLiverpool
                              -6.988e-01 1.290e+00 -0.542 0.588370
## nationalityEcuador
                              -4.562e+00 3.647e+00 -1.251 0.211828
## new_foreign
                              4.177e+00 1.791e+00
                                                     2.332 0.020327 *
                              -2.637e+00 1.151e+00 -2.292 0.022574 *
## positionRW
## positionLW
                              -2.238e+00 1.101e+00 -2.034 0.042793 *
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.05 '.' 0.1 ' ' 1
## Residual standard error: 5.07 on 322 degrees of freedom
## Multiple R-squared: 0.8603, Adjusted R-squared: 0.8507
## F-statistic: 90.13 on 22 and 322 DF, p-value: < 2.2e-16
epl.back.forward.y = predict(epl.back.forward.fit, newdata=test)
## Warning in predict.lm(epl.back.forward.fit, newdata = test): prediction
## from a rank-deficient fit may be misleading
mean((test$market_value-epl.back.forward.y)^2)
## [1] 28.38302
par(mfrow=c(2,2))
epl.tree =tree(market_value~age+position_cat+region+big_club+new_signing+new_foreign,train)
summary(epl.tree)
##
## Regression tree:
## tree(formula = market_value ~ age + position_cat + region + big_club +
      new_signing + new_foreign, data = train)
## Variables actually used in tree construction:
## [1] "big_club"
                     "position_cat" "age"
                                                   "region"
```

```
## [5] "new_signing"
## Number of terminal nodes: 8
## Residual mean deviance: 77.22 = 26020 / 337
## Distribution of residuals:
      Min. 1st Qu. Median
                               Mean 3rd Qu.
## -31.310 -4.845 -1.345
                              0.000
                                       4.155 37.000
plot(epl.tree)
text(epl.tree,pretty=0)
cv.epl=cv.tree(epl.tree)
plot(cv.epl$size,cv.epl$dev,type='b')
prune.epl=prune.tree(epl.tree,best=8)
plot(prune.epl)
text(prune.epl,pretty=0)
                                             00009
       big_club < 0.5
                                        cv.epl$dev
                                             40000
                                                                   5
                                                      2
                                                           3
                                                               4
                                                                       6
                                                                            7
```



cv.epl\$size

We try the SVM model. First we standarize the data and resplit the train and test set. Next we fit market value to all predictors and we have test MSE of 204

```
\#dropVars \leftarrow sapply(train, function(i) \{ if((is.numeric(i) & !any(is.nan(i)) & sd(i) > 0) \mid is.factor(i) \}
#smaller_train <- train[, dropVars]</pre>
# subset test dropping columns that don't fit the criteria
#smaller_test <- test[, dropVars]</pre>
epl_ddf <- as.data.frame(sapply(epl, function(i) if(is.numeric(i)) scale(i) else i))</pre>
dropVars <- sapply(epl_ddf, function(i) { if((is.numeric(i) & !any(is.nan(i)) & sd(i) > 0) | is.factor(
epl_ddf <- epl_ddf[, dropVars]</pre>
train.index=sample(nrow(epl_ddf),nrow(epl_ddf)*0.75)
train=epl[train.index,]
test=epl[-train.index,]
#smaller_train
\#test\_ddf \leftarrow as.data.frame(sapply(test, function(i) if(is.numeric(i)) scale(i) else i))
\#dropVars \leftarrow sapply(test\_ddf, function(i) \{ if((is.numeric(i) & !any(is.nan(i)) & sd(i) > 0) \mid is.facto
\#smaller\_test \leftarrow test\_ddf[, dropVars]
#train
\#test\_ddf[is.na(test\_ddf)]
#test_ddf %>% lapply(function(x){any(is.na(x))})
#summary(train ddf)
svm.fit <- svm(market_value~., data=train)</pre>
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
svm.fit.y <- predict(svm.fit, newdata=test)</pre>
#summary(svm.fit)
mean((test$market_value-svm.fit.y)^2)
## [1] 123.6476
#svm.fit.y
We use the tune function to do SVM predictors search. The best model from this search gives a test MSE of .
tuneResult <- tune(svm, market_value ~ ., data = train,</pre>
              ranges = list(epsilon = seq(0,1,0.1), cost = 2^{(2:9)})
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
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## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
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## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
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## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
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Warning in svm.default(x, y, scale = scale, ..., na.action =

na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and

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## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
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## 'nationalityTunisia' constant. Cannot scale data.
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## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
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## 'nationalityTunisia' constant. Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

```
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

```
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
```

```
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
\#\# 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
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## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
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## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
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## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
\#\# 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
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## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
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## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
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## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
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## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
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## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
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## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

```
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
\#\# 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
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## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
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## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
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## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
\#\# 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
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## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
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## and 'nationalityCroatia' and 'nationalityEstonia' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
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## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

```
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
```

```
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
\#\# 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
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## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
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## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
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## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
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## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
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## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
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## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
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## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
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## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

```
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
```

```
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
\#\# 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
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## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
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## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
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## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
\#\# 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
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## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
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## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
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## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
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## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
\#\# 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
```

```
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

```
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
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## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
```

```
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
```

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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
\#\# 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'nationalityEstonia' and
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## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
## and 'X.nationalityTrinidad.and.Tobago.' and 'nationalityUruguay' constant.
## Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityArmenia' and 'nationalityBenin' and
## 'nationalityBermuda' and 'nationalityColombia' and 'nationalityCroatia'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'X.nationalityNew.Zealand.' and 'X.nationalityTrinidad.and.Tobago.'
## constant. Cannot scale data.
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
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## 'nationalityKenya' and 'nationalityRomania' and 'nationalitySlovenia' and
## 'X.nationalitySouth.Korea.' and 'X.nationalityTrinidad.and.Tobago.' and
## 'nationalityTunisia' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityFinland' and 'nationalityJamaica' and
## 'nationalityKenya' and 'X.nationalityTrinidad.and.Tobago.' constant. Cannot
## scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda'
## and 'nationalityCroatia' and 'X.nationalityCzech.Republic.' and
## 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCanada' and 'nationalityCroatia' and 'nationalityEcuador'
## and 'nationalityFinland' and 'nationalityJamaica' and 'nationalityKenya'
## and 'nationalityNorway' and 'X.nationalityTrinidad.and.Tobago.' constant.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityChile' and 'nationalityCroatia' and 'nationalityFinland' and
## 'nationalityGreece' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' and 'nationalityVenezuela' constant.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
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## 'nationalityJapan' and 'nationalityKenya' and 'X.nationalityThe.Gambia.'
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## Warning in svm.default(x, y, scale = scale, ..., na.action =
## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
## 'nationalityCroatia' and 'nationalityCuracao' and 'nationalityFinland'
## and 'nationalityItaly' and 'nationalityJamaica' and 'nationalityKenya' and
## 'X.nationalityTrinidad.and.Tobago.' constant. Cannot scale data.
```

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## 'nationalityTunisia' constant. Cannot scale data.
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## na.action): Variable(s) 'nationalityBenin' and 'nationalityBermuda' and
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```

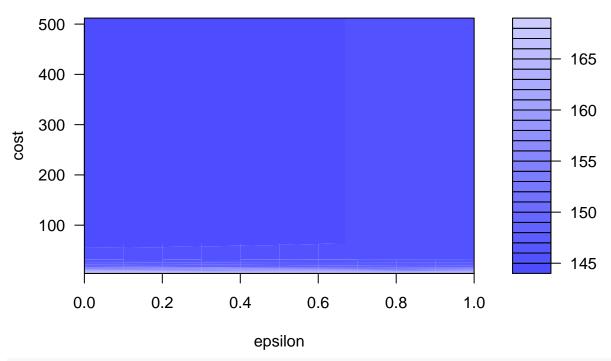
```
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## scale data.
print(tuneResult)
## Parameter tuning of 'svm':
## - sampling method: 10-fold cross validation
##
## - best parameters:
   epsilon cost
##
##
```

- best performance: 144.6857

```
# Draw the tuning graph
plot(tuneResult)
```

Performance of 'svm'



```
tunedModel <- tuneResult$best.model
tunedModelY <- predict(tunedModel, test)

error <- test$model_value - tunedModelY

# this value can be different on your computer
# because the tune method randomly shuffles the data
#tunedModelRMSE <- rmse(error) # 2.219642
#print(tunedModelRMSE)
mean((test$market_value-tunedModelY)^2)</pre>
```

[1] 95.67568