

Sway

Lobby

Rooms

Quizzes

Reports

Edit Quiz

Save and Exit

Quiz name

Weekly quiz 8 (DUE: Sep 15 10am)

1 | **MULTIPLE CHOICE**

Edit

In the anova method the splitting criteria is

Answer choices

A	Gini
B	log-likelihood
C	SST – (SSL + SSR)
D	AIC



2 | **MULTIPLE CHOICE**

Edit

The five ingredients for a regression tree are: (choose all that apply)

Answer choices

A	A splitting criterion
B	A summary statistic or vector
C	The error of a node.
D	The prediction error for a new observation
E	Any necessary initialization

**3** | **MULTIPLE CHOICE**

Edit

The rpart library is named from

Answer choices

A	Recursive PARTitioning
B	Classification and regression tree
C	Regression and partition trees
D	Random forests

**4** | **MULTIPLE CHOICE**

Edit

How many terminal nodes in this tree?

node), split, n, deviance, yval

* denotes terminal node



1) root 105 7118.26700 15.805220

2) Disp< 156 70 1491.62800 11.855870

4) Country=Brazil,Japan,Japan/USA,Korea,Mexico,USA 58 421.21470
10.318470

8) Type=Small 21 50.30983 7.629048 *

9) Type=Compact,Medium,Sporty,Van 37 132.80330 11.844890 *

5) Country=France,Germany,Sweden 12 270.72330 19.286670 *

3) Disp>=156 35 2351.19600 23.703910

6) HP.revs< 5550 24 980.27790 20.388710

12) Disp< 267.5 16 395.99670 17.820060 *

13) Disp>=267.5 8 267.58000 25.526000 *

7) HP.revs>=5550 11 531.63680 30.937090 *

Answer choices

A	3
B	4
C	5

D 6

5 | MULTIPLE CHOICE

Edit

In the summary of fit:

```

CP nsplit rel error xerror xstd
1 0.460146 0 1.00000 1.01790 0.162343
2 0.117905 1 0.53985 0.74725 0.109078
3 0.112343 2 0.42195 0.74740 0.112607
4 0.044491 3 0.30961 0.53108 0.093947
5 0.033449 4 0.26511 0.50206 0.099952
6 0.010000 5 0.23166 0.47556 0.119522

```

What does the rel error correspond to?

Answer choices

A	$1 - R^2$
B	PRESS statistic
C	$\Sigma (y_i - \bar{y})^2$
D	MSE

6

MULTIPLE CHOICE

Edit



For this snippet of a tree

node), split, n, deviance, yval

* denotes terminal node

3) Disp>=156 35 2351.19600 23.703910

What is the split?

Answer choices

A	Disp < 23.7203910
B	Disp > 2352.196
C	Disp < 35
D	Disp>=156

7

MULTIPLE CHOICE

Edit



For this snippet of a tree

node), split, n, deviance, yval

* denotes terminal node

3) Disp>=156 35 2351.19600 23.703910

what would be the predicted value?

Answer choices

A	156
B	35
C	2351.19600
D	23.703910

8

MULTIPLE CHOICE

Edit

For this snippet of a tree

node), split, n, deviance, yval

* denotes terminal node

3) Disp>=156 35 2351.19600 23.703910

How many cases are in this partition?

Answer choices

A	156
B	35
C	2351
D	23

9

TRUE/FALSE

Edit

It is possible to overfit a data set, using a tree, by forcing the model to perfectly predict every response value. It would then not be a good model for future data sets.

Answer

True



10 | MULTIPLE CHOICE

Edit

Stopping rules for a regression tree include: (choose all that apply)

Answer choices

A	minsplit (number of cases in a subset to allow another split to happen)
B	minbucket (smallest number of cases allowed in a terminal node)
C	cp (smallest difference in statistic allowed for a split to happen)
D	MSE

+ Multiple Choice

+ True/False

+ Short Answer